YACHTING

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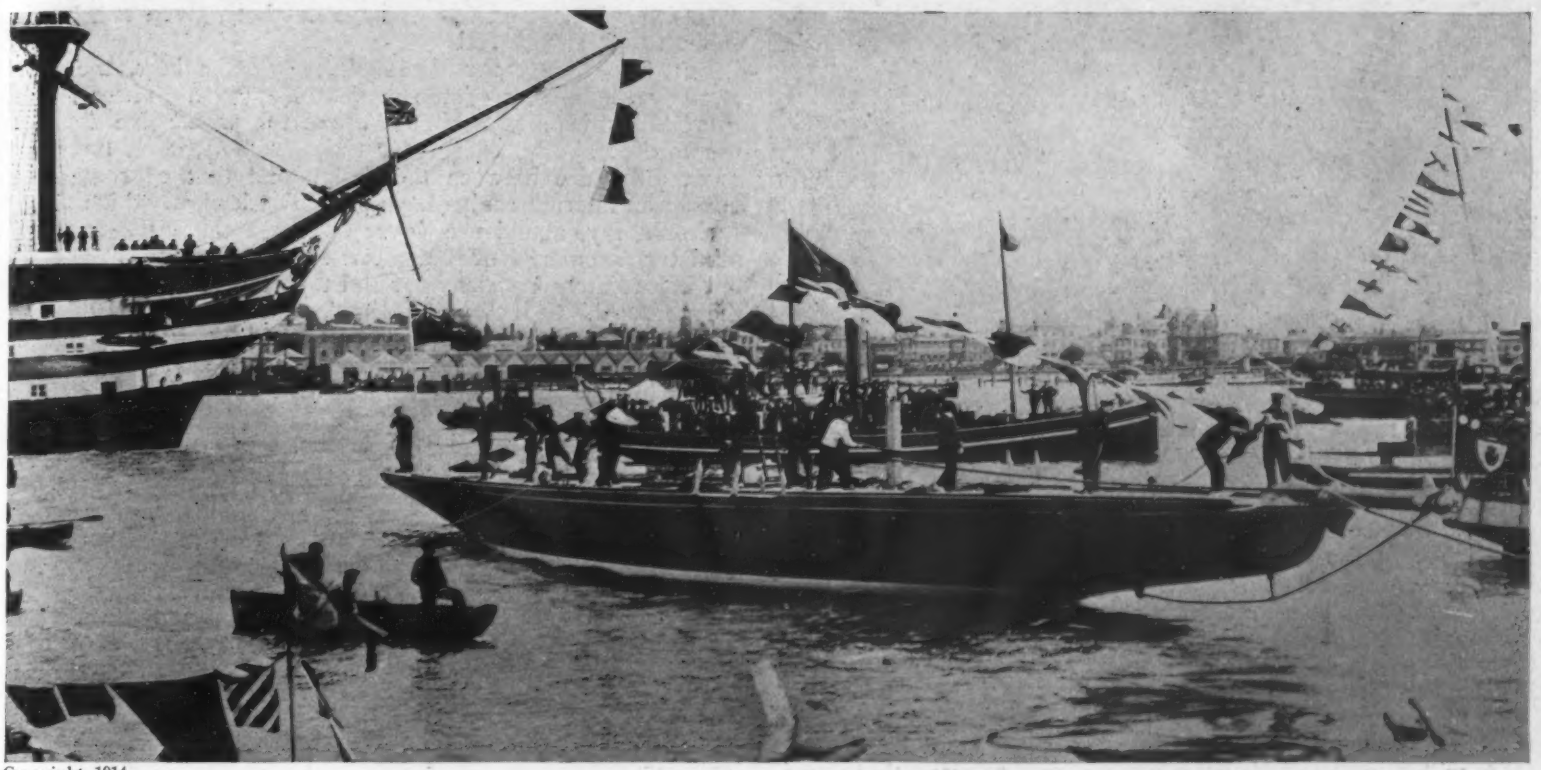

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SHAMROCK IV AS SHE FLOATED THE FIRST TIME. HER HOLLOW FORWARD PROFILE AND SNUB NOSE ARE STRONGLY APPARENT

Shamrock IV, the America's Cup Challenger

By ROBERT MACINTYRE

SPECIAL ENGLISH CORRESPONDENT OF YACHTING

SHAMROCK IV, Sir Thomas Lipton's fourth challenger for the America's Cup, was floated on May 26 at Gosport, England, with a great deal more enthusiasm than seemed to be natural to the case of a people who had failed as often as we have to recover the trophy your famous schooner America took away more than sixty years ago from the whole country.

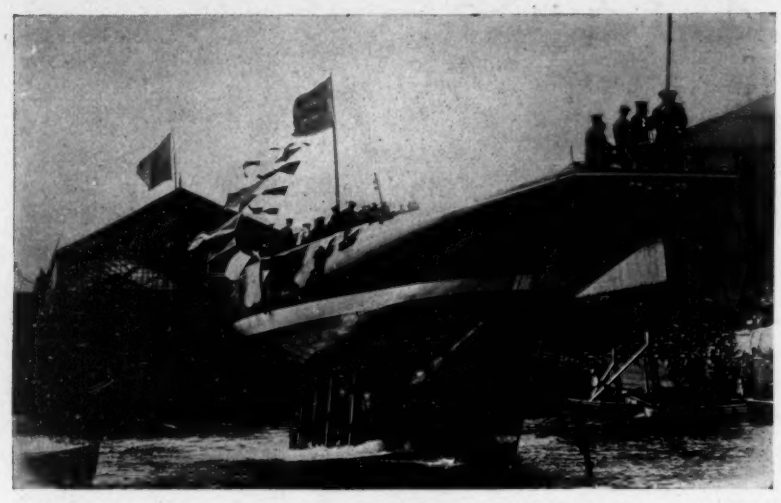
Of course, building hopes on challengers is a new game for the south of England, which has not had much directly to do with an enterprise of the kind since the early days of the long-drawn-out competition. Shamrock I was built on the Thames at Poplar, but she was a Fife design. Galatea and Genesta were designed by an Englishman, but both were built on the Clyde. The world's premier shipbuilding river, which has just produced the Aquitania, has been responsible for Genesta, Galatea, Thistle, Valkyrie II, Valkyrie III, Shamrock II and Shamrock III. Moreover, when each of these vessels set out from the Tail of the Bank to find their fate off Sandy Hook, Clyde people of every degree built high hopes on their capacity to bring the cup back.

After all these disappointments Scotchmen were not unnaturally somewhat difficult to rouse into enthusiasm when the news spread that Sir Thomas had decided to adventure once more as champion of the British Empire. Possibly the fact that the designer and the builders of the newest Shamrock were to be Sassenachs had something to do with the comparative lukewarmness. Still there it is, and the excuse which I have offered for it is, at any rate, plausible.

Probably because they are fresh to the business of America's cup racing, Solent yachtsmen made a great fuss over the launch of the challenger. They sailed or trooped into Gossport from all parts of maritime Hampshire in order to *assist*—in the French sense—at her floating, and, to judge from their conversation while waiting for the water to come up, next September's races are all over, bar the shouting. It was argued that what Mr. Nicholson had done in the 15-meter class, the 19-meter class and the schooner class, he could not possibly fail to do under the American Universal Rule. Having seen so many promising buds of the cup challenger kind withered in the flower, I was not quite so sanguine. I did not, however, discover my pessimism to the people around me, partly because I feared that they might treat me as crowds in a happily distant age periodically treated prophets of unpleasant happenings, and partly because I did not wish to appear to be throwing cold water on—shall I say—the aspirations of youth.

The new yacht was greeted with cheers from lusty throats and the hooting of steamboat whistles and sirens. It was a great scene altogether, and I would not have missed it for the world. The vessel's entry was even happier and more impressive than these printed words express. It was Queen Mary's birthday, and in honor of it the ships of war and commerce and pleasure which lay at moorings in Portsmouth Harbor were dressed with flags, rainbow fashion. The Royal Dockyard made a brave show of Union Jacks and elsewhere on both shores of the harbor there was a lavish display of similar official flags. Camper and Nicholson yard, in which the yacht was built, was especially bright with bunting.

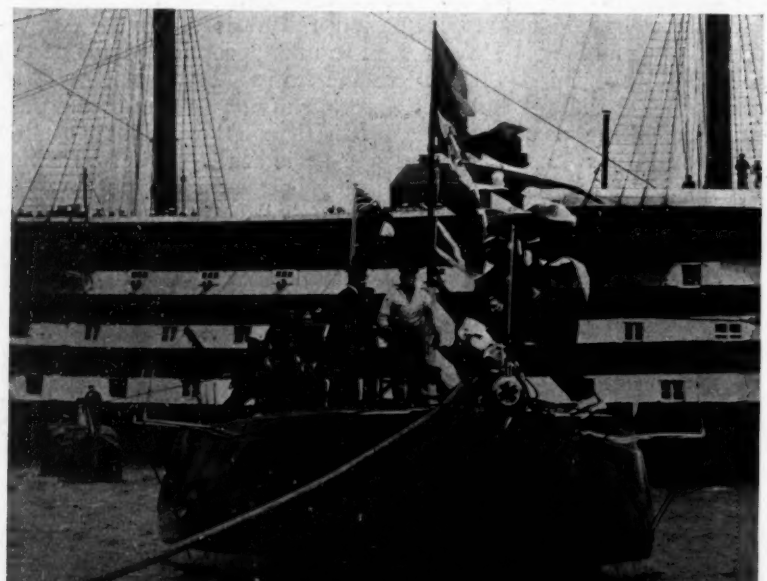
The challenger, like all her predecessors since, at any rate, Thistle, was built in a ship house from which until a day or two previously the public and the press were rigidly excluded. The guns of Portsmouth were thundering forth their birthday salute when, on the stroke of twelve, the Countess of Shaftesbury, wife



SHAMROCK IV SLIDING OVERBOARD. THIS PICTURE SHOWS HER FLAT, HOLLOW OVERHANG AND PRONOUNCED TUMBLE HOME

of the commodore of the Royal Ulster Yacht Club, smashed a bottle of champagne against the port side of the yacht, and before the smoke of the final gun of the salute had disappeared, our latest green and gold hope was slipping down the ways into as pretty and as impressive a sea picture as one could wish to see. On three sides of the water area into which she was launched, there were tiers of yachts and coasting vessels, and in the background, standing majestically out from everything else afloat, was Nelson's famous ship, the Victory. The latest challenger had a most impressive formal entry into the world, and if she wins there will be sure to be a great many people to recall that Providence gave a sign of her ultimate victory on the day of her launch.

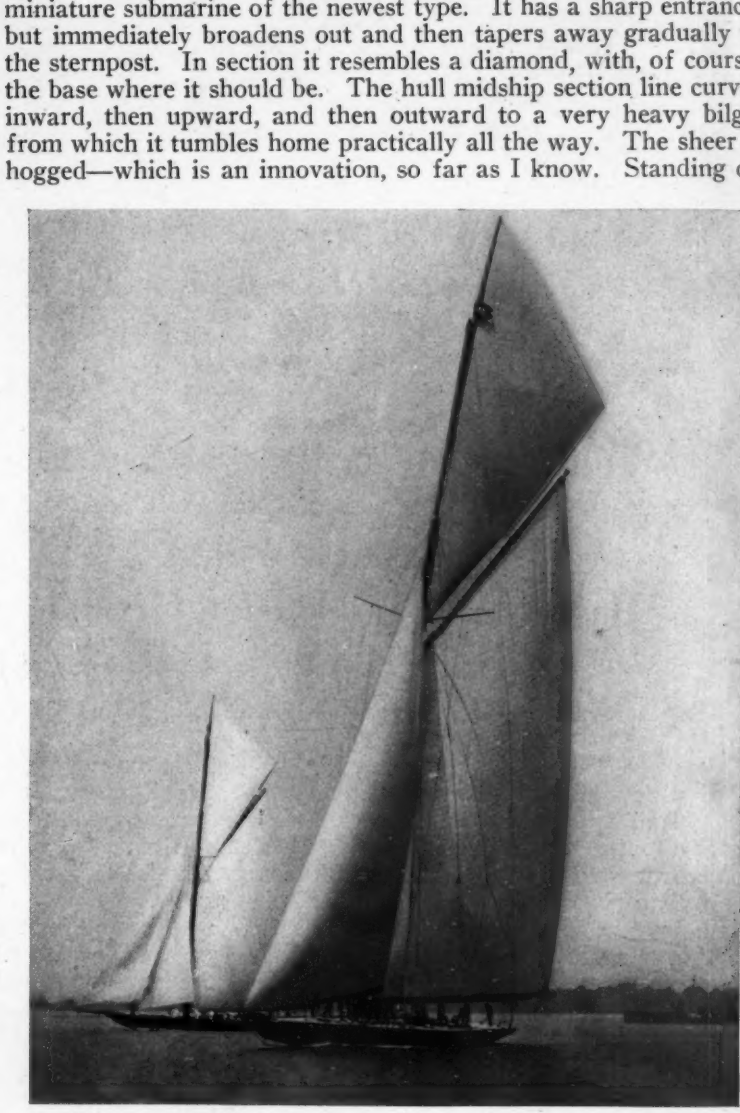
Most of the people who saw her launched saw her then for the first time. My case was slightly different, because I spent the better part of the previous afternoon admiring her, so to say, in her shed. She is not, of course, a beauty, but I do not suppose that any of your three defenders surpasses her in respect of good looks. Instead of the fine ends which we have had in challengers built to the old rule, she is very snub-nosed forward and sawed off aft. The overhangs are not excessive, as may be judged from the fact that while her waterline length is 75 feet, her overall length is 110 feet. There are 10 feet of the bowsprit outboard.



THIS IS THE BOAT WITH WHICH SIR THOMAS LIPTON HOPES TO WIN THE AMERICA'S CUP

The height of the mast is, I should say, about 150 feet. There will only be one headsail, as in two of your defenders. From these facts the reader may, if he likes, calculate what the sail spread is. The exact figures have not been given out, but it is about 10,000 square feet.

Forward, except for the snubness of the bow, the hull is strongly reminiscent of the second Shamrock. There is, however, something like a hollow where the profile line ascends to the forefoot. Aft, except for the sawed-off stern, there is no great difference between the design and that of some of the Nicholson international rule yachts. The lead, of which there is, I should say, abundance (over 65 tons) takes the form of a miniature submarine of the newest type. It has a sharp entrance, but immediately broadens out and then tapers away gradually to the sternpost. In section it resembles a diamond, with, of course, the base where it should be. The hull midship section line curves inward, then upward, and then outward to a very heavy bilge, from which it tumbles home practically all the way. The sheer is hogged—which is an innovation, so far as I know. Standing on



SHAMROCK IV UNDER SAIL ON THE SOLENT. THE 23-METER SHAMROCK III IS SEEN IN THE BACKGROUND. SO FAR THE NEW YACHT HAS PROVED SUPERIOR TO THE OLD ONE ON EVERY POINT OF SAILING

the deck, too, and looking aft, I got an impression that instead of a fining away there was something like a flare out. I shouldn't wonder if there really is, for there are so many other bold things about the boat that it wouldn't be surprising to find Mr. Nicholson as logical here as he is elsewhere.

The beam is between 22 and 23 feet. I was not given the exact figure, but I was told authoritatively that it was an inch or two greater than that of the broadest of your defenders. The draught is something over 13 feet, but not quite up to the limit allowed by the rule. The centerboard is 10 feet. Structurally, the challenger is exceptionally light but very strong. The frames, which are web frames, are of nickel steel, and elsewhere in the skeleton an alloy called Navaltum is used. The planking is three skins of wood laid on diagonally, the outer skin being of mahogany. The deck

is of five layers of the thin wood which is commonly used for chair seats. It is quite a strong job and, as may be guessed, extremely light. The whole system of construction will, of course, be severely tried, and it may fail here and there. The planking is held together by means of copper fastenings. But, writing before the yacht has appeared under canvas, I express the opinion that on paper, at any rate, there is not much wrong with the design. She is a boldly conceived boat, and deserves to succeed. To sum up as graphically as possible, let me describe her features as tumble home sides, big channel plates, a heavy bilge, a sawed-off stern, a bluff bow, lots of lead, and plenty of sail. She is no beauty, but she is workmanlike.

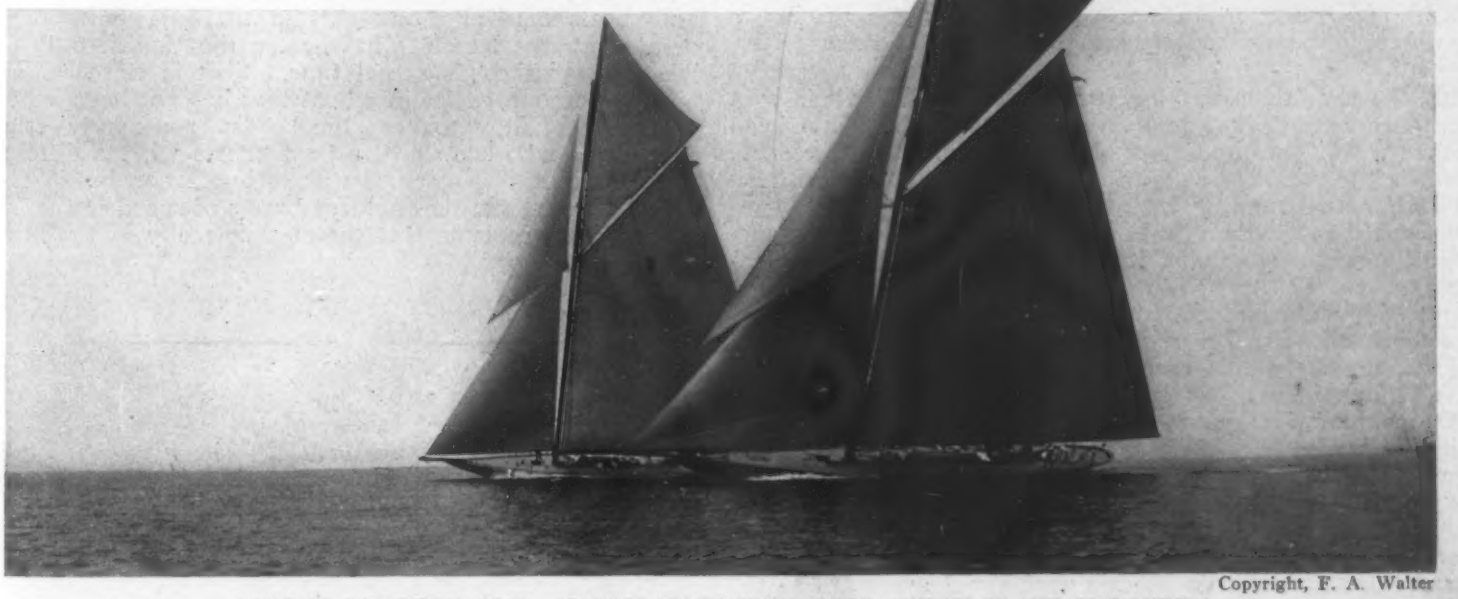
After the launch there was the usual luncheon, at which the usual speeches were delivered. Sir Thomas, as he always is, was highly complimentary to Americans, at whose hands he declared he had always received the greatest consideration and kindness. In sport they were fair, and it was a pleasure to strive with them. He was sure the best boat would win in September, and he hoped that the best boat would be Shamrock IV, whose four-leaved shamrock in her racing flag was a mascot in which he had the greatest faith. Other speakers had as complimentary things to say about Americans, although there appeared to be a pretty general desire to "slip it across" you in, at any rate, this race for the cup.

Mr. W. P. Burton is to steer the challenger, whose skipper will be, however, Captain Turner, a Colne man who has since the nineties of the old century done a great deal of first class racing. There are three Cranfields of a new generation in the crew. One of them is a son of William Cranfield, who is, I believe, in rather poor health just now, but, as may be guessed, rather interested in this latest attempt to recapture the trophy which he tried for in 1893 and 1895, in Valkyrie II and Valkyrie III.

In the light of these figures on the challenger, which are authentic and the first received in this country, it is interesting to review an article that appeared in YACHTING last December by Mr. Charles P. Tower on "The Possibilities in the America's Cup Racers." The article was a forecast of what we might look for in the challenger for the America's Cup under our rating rule. The figures given out at that time, when none of the boats was much more than on paper, or laid down on the mold loft floor, were that on a 75-foot waterline the new challenger would be about 108 feet long overall with a beam of approximately 22 feet and a draught of 13.75, while the sail area was set down as 10,400 square feet. The rating with this sail area worked out approximately 88.80. The rating of the Shamrock has not been announced, but it will probably be close to this figure. Pretty good guessing seven months in advance, is it not?

The Trial Races of the Cup Defenders

By HERBERT L. STONE



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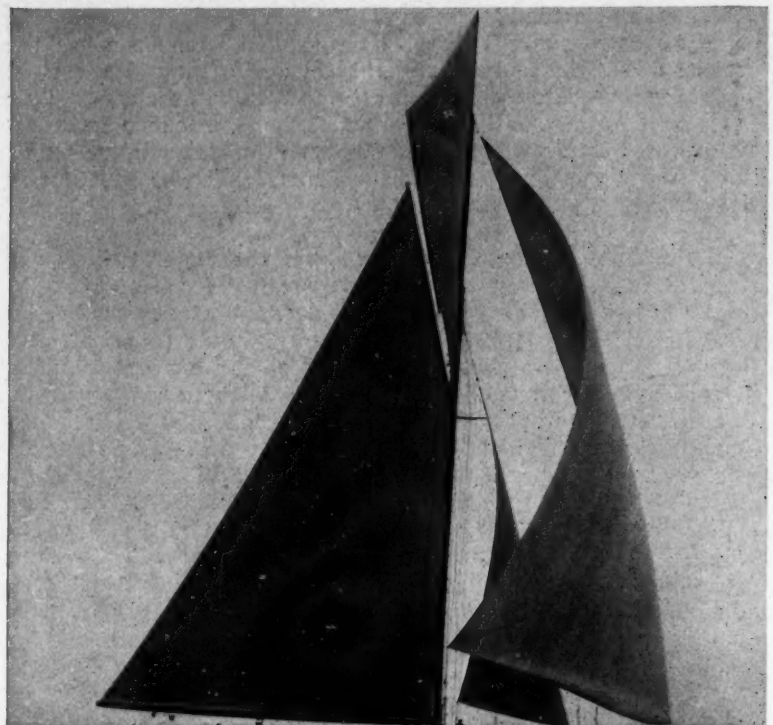
START OF THE SECOND RACE. RESOLUTE IN WINDWARD BERTH, VANITIE IN THE FOREGROUND

THOUGH it has been eleven years since the Sound, or the waters off Sandy Hook, have seen trial races to pick a defender for the America's Cup, the interest in these events has not abated in the least, if we can judge from the fleets that have followed the boats in their early struggles this year. There is no question that the three America's Cup candidates dominate the sport this season, and whilst just as large fleets as ever will probably be raced in the other regattas, the general interest is centered on the larger boats.

After several weeks of preparatory work the yachts first came together on June 2, and between that date and the 13th two of them met in seven races. In but one race did the three boats meet, Defiance, the Owen-designed candidate, starting only in the first one sailed off Sandy Hook, though she did not finish. The latter yacht is not yet in condition, and though she has been out a month, has not "found herself," and is still an unknown quantity to her designer, owners and crew, as well as to the general public. The racing has, therefore, been confined to the Resolute and to the Vanitie. We cannot, of course, go into the details here of all of these seven races, nor is it necessary to do so in order to get a line on the comparative merits of the two boats, a general summary of the series being adequate for this purpose.

Of the seven races sailed Resolute has won five and Vanitie two. In one of the races credited to Resolute, however, Vanitie withdrew, owing to the fact that two of her men had been swept overboard by a sea, and she quit the race in order to pick them up. At this time she was in the lead, and, while no race is won until the finish line is crossed, she would probably have had a chance to have tucked away another race in her lockers had she been able to keep on. Of the seven races sailed all of them may be said to have been good tests of the



VANITIE'S RIG, WITH A LARGE FORE TRIANGLE, ALLOWING A BIG BALLOON JIB TO BE CARRIED, IS PARTICULARLY EFFECTIVE ON A REACH

boats, the conditions varying from light variable winds to a strong breeze of thirty knots strength. All of them have been finished within the time limit, and all of them have tested the boats on the various points of sailing, though there has been but little actual running with spinnakers set as yet.

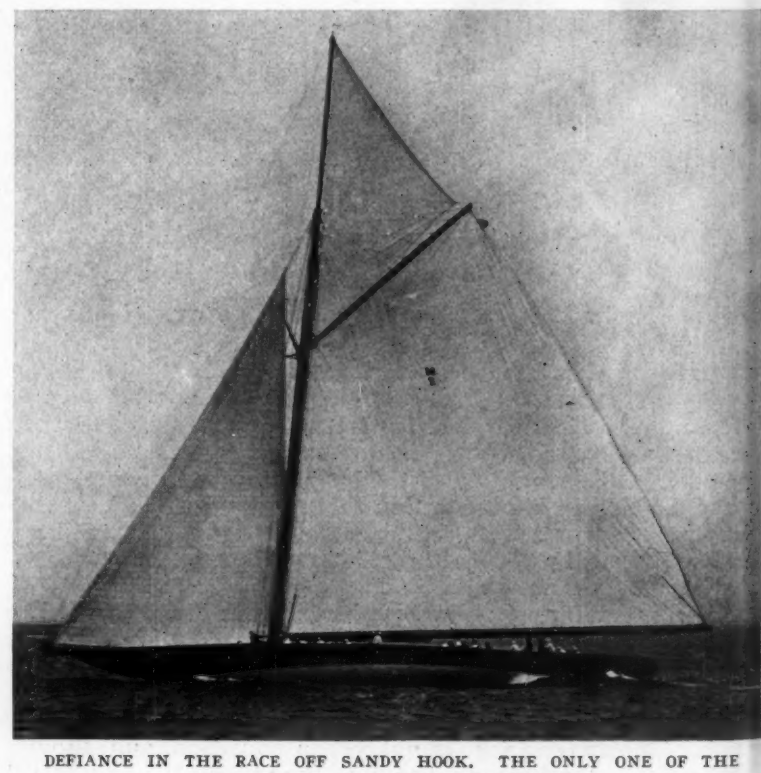
Both of the races won by Vanitie have been in light airs, and, while the wind was fluky, it can hardly be said to have favored one more than the other if we bar the first race in which Vanitie, by going off wind-hunting, picked up a nice streak of air and closed up a gap of nearly half a mile between herself and Resolute. In this race she won by 16 minutes and 48 seconds actual time, which, of course, is not a true measure of the comparative speeds of the boats. In the second race, which was sailed in a steady breeze of from ten to fifteen miles strength and was over a windward and leeward course, Resolute won by only 11 seconds actual time. The third race was sailed in a hard southerly wind estimated at thirty miles strength, with heavy squalls, and, after some half an hour of sailing, two sailors on Vanitie were swept overboard as the yacht was hove down in a hard puff and so much time was lost in picking them up that Vanitie did not attempt to finish, Resolute completing one round of the course alone and being declared the winner by the Regatta Committee.

In all of the races sailed so far Vanitie has done her best work in reaching and running, particularly in the former, while Resolute seems to have the call on windward work, the point on which the Herreshoff boats are usually supposed to excel. Resolute seems to carry a lee bow wave which lifts her out to windward, and, with her helmsman feather-edging the breeze, especially in the puffs, she eats out to windward in a remarkable manner and goes all the time. The Vanitie seems to roll her weather side out more than the Resolute in a hard thrash to windward, whereas the latter, with her V-sections, seems to get a flatter floor when down to her sailing lines and gets through the water with less fuss and resistance.

Not only this, but Resolute's sails have been in much better shape in the races she has sailed, and have either been set or trimmed more effectively than those of the Vanitie. The latter seems to have been sailed too fine on the wind in most of her races and her head sails have shivered constantly on this point of sailing. Time and again Vanitie has opened up a good lead on the reaching legs of a triangular course, only to lose it when working to windward, though on those occasions when she has been kept off and sailed full she has done as well as the Herreshoff boat. Thus, while the Resolute has proved superior in windward work as the two boats have been sailed so far, yet it has been by no means conclusively shown that she is really the faster boat. There is an old saying that you can sail in a boat to windward, but you cannot luff her to the weather mark, and this certainly holds true in the case of the Vanitie in the seven races so far sailed.

As a case in point the second race sailed off Sandy Hook may be cited. In this race, after going into the windward leg with a two minute lead, Vanitie was passed by Resolute after only some half hour's sailing. She was being pinched and starved so that the luffs of her head sails were constantly lifting and fluttering, and in a series of short hitches with Resolute the boat was never got going between tacks. Not only this, but she lost some ten or fifteen seconds on each tack, being slower in stays, possibly because she did not have sufficient headway to come about smartly. After Resolute drew well ahead Vanitie's headsails were either trimmed in flat or she was kept off more, with the consequence that in the ensuing half hour she walked past Resolute to windward, and continued to draw away from there to the finish line, beating her some two minutes in less than four miles of sailing with wind conditions favoring the two boats equally.

An analysis of the times of the yachts in the six races which both boats finished shows that in the 62¾ miles of windward work the Resolute has beaten the Vanitie only 6 minutes and 36 seconds actual time. That is close sailing and is easily accounted for in a boat that has not been kept moving by the failure to keep the headsails properly trimmed. Every one who has sailed a boat knows what a difference a few inches of jib sheet one way or another makes in the way a boat travels, and the frequent bursts of speed of the Vanitie to windward indicate that the stuff is really in the boat if it can be gotten out.



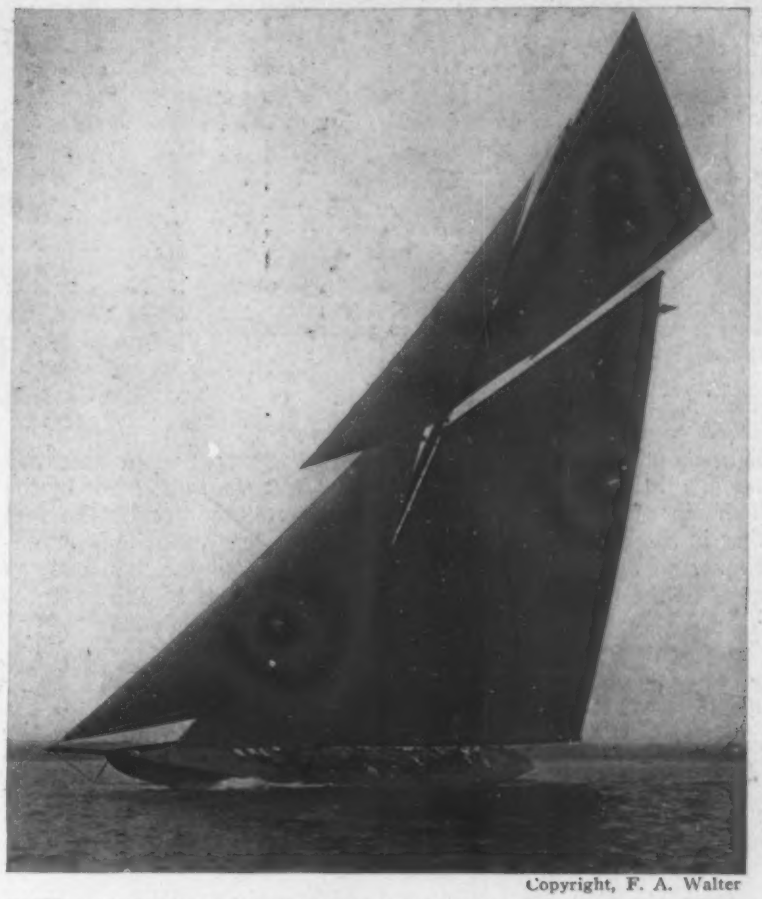
DEFIANCE IN THE RACE OFF SANDY HOOK. THE ONLY ONE OF THE FIRST SEVEN IN WHICH SHE STARTED

So far, also, in general all-round handling Charles Francis Adams, who has been sailing the Resolute, has had all the best of it in the duel between the two boats. He has usually placed his boat better at the start, has shown excellent judgment both at close quarters and in the choice of sails, and in windward work has made the most of every favorable slant of wind, not sailing his boat too fine and yet keeping her looking up all the time. The crew of the Resolute seems to work like clock-work. It must be remembered, in making this criticism, that the Resolute has been sailing almost a month longer than the Vanitie, and that her helmsman and crew are more used to her than the helmsman and crew of the Vanitie, the latter boat having been sailed only two or three times before her first race on June 2. Since then the Vanitie has been doing better.

Another feature in which the Resolute has excelled has been in her sails. Her mainsail has had time to get stretched into shape, while in the first few races Vanitie's sail was badly wrinkled along the head and at the clew and seemed to have an undue amount of draught in it. The longer she was sailed the better the sails got, but at no time have they seemed as good or as effective as those of the Resolute. This will, of course, be remedied, and she will probably have several other suits of sails before the season is over.

In regard to Defiance, the Owen boat, all that can be said is that it seems a shame that she could not have gotten ready earlier. Five weeks (a plenty long enough time) have elapsed since her launching, and she is not yet sailing. Her original rig was found to be too much for her, and the mast, which it will be remembered was some 150 feet in height, has been cut down 8 feet and a hollow wooden mast substituted for the steel one, reducing the weight nearly 1,800 pounds. She was still found not to be right, and further changes are being made in her rig at this writing. It will probably be the first of July before she is really ready.

RESOLUTE WITH REACHING JIB TOPSAIL



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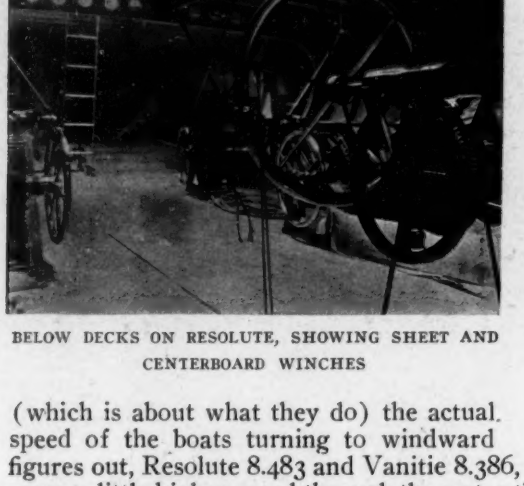
VANITIE CLOSE HAULED. WITH HER HEAD SAILS HARD FULL SHE FOOTS VERY FAST

Looking on the actual performance of the boats during the six races sailed, as shown by the following table, it will be seen that the two boats have sailed 179¾ miles. In actual sailing time for this distance Vanitie has beaten the Resolute 17 minutes 22 seconds. On the ratings of the boats as announced by the Regatta Committee (Vanitie's being 85.43 and Resolute's 80.09) the former must allow the latter 3 minutes and 13 seconds over a 30-mile course, or a total of 19 minutes and 17 seconds for the distance sailed in the six races under discussion. Thus, on corrected time, Resolute has only beaten Vanitie by 1 minute 55 seconds in the whole six races. The table shows just how the boats have fared on each point of sailing.

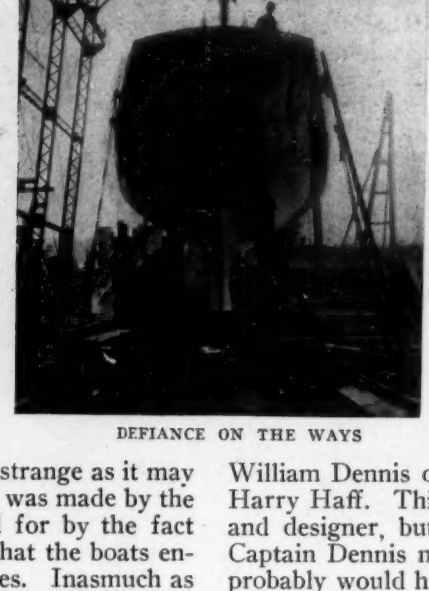
	RESOLUTE.		VANITIE.
	Miles.	Time.	Time.
To windward.....	62¾	9.34.46	9.41.22
Reaching	81	10.34.41	10.10.07
Running	36	3.58.20	3.58.56
	179¾		
Actual elapsed time....		24.07.47	23.50.25
Time allowance		19.17	.....
		23.48.30	23.50.25

On actual sailing Vanitie beats Resolute 17 minutes and 22 seconds.
On corrected time Resolute beats Vanitie 1 minute 55 seconds.

The table shows that in the 62¾ miles of windward work the Rosolute has beaten the Vanitie 6 minutes 36 seconds, while in reaching 81 miles the Vanitie has beaten the Resolute 24 minutes 34 seconds. On running the two boats seem to be very close, and in the 36 miles before the wind the Resolute has 36 seconds the better of Vanitie. Reducing the figures to *speed per hour*, shows that on windward work the Resolute averaged 6.550 miles per hour, while Vanitie's speed works out 6.476 miles. On reaching Vanitie traveled at a rate of 7.964 miles per hour, while Resolute's speed was 7.661. On running the speeds figure out: Resolute 9.063 and Vanitie 9.041. These speeds are all in nautical miles. If the boats worked to windward within 3½ points of the wind



BELOW DECKS ON RESOLUTE, SHOWING SHEET AND CENTERBOARD WINCHES



DEFIANCE ON THE WAYS

VANITIE HAULED OUT. THE FIRST PICTURE OF HER UNDER-WATER BODY

(which is about what they do) the actual speed of the boats turning to windward figures out, Resolute 8.483 and Vanitie 8.386, or, strange as it may seem, a little higher speed through the water than was made by the boats in reaching. This can only be accounted for by the fact that in the longer distance of the reaching legs that the boats encountered lighter winds, or else by tidal influences. Inasmuch as most of the races have been sailed in light winds of 8 to 10 knots strength, this is a wonderful showing.

Since the Sandy Hook series Captain William Dennis of the Vanitie has been replaced temporarily by Harry Haff. This was a radical move on the part of the owner and designer, but it seems warranted under the circumstances. Captain Dennis might have gotten the hang of the boat in time, probably would have, but it might have been so late in the season as to have militated against the yacht's chances.

By-Laws of United States Power Squadrons

A GREAT deal of interest is being shown throughout the country regarding the formation of the national body known as the United States Power Squadron—an organization that is practically an association of the various local power squadrons that are being formed throughout the United States.

As there is a good deal of uncertainty regarding the scope and functions of this national organization, the following extracts of the by-laws are printed to show the details of organization and the scope of the national governing or, rather, leading body. The value of the movement to motor boat owners has been already fully set forth here, and need not be repeated now.

ARTICLE I.

NAME AND OBJECT

Section 1.—The name of this organization shall be the

UNITED STATES POWER SQUADRONS.

Sec. 2.—The object of the United States Power Squadrons shall be to promote a better acquaintance among the owners of power boats and to establish a high standard of skill in the handling of such boats by

(a) The encouragement of the organization of local power squadrons.

(b) The adoption of suitable rules for the management of local power squadrons and their individual members.

(c) The appointment of Boards of Instruction and Examination in certain geographical districts to pass upon the qualifications of individuals for membership in Local Squadrons.

Sec. 3.—The membership of the United States Power Squadrons shall consist of those Local Power Squadrons which shall be admitted to membership by the Governing Board, and which agree to adopt the rules and regulations made for Local Squadrons.

ARTICLE II.

Section 1.—The officers of the United States Power Squadrons shall be a Chief Commander, a Vice-Commander, a Rear-Commander, a Secretary and a Treasurer elected by ballot, and a Flag Lieutenant to be appointed by the Chief Commander.

Sec. 2.—There shall be a Governing Board consisting of the five elective officers, four members at large, not necessarily delegates, elected by ballot, and a Naval Officer appointed by the Navy Department.

Sec. 3.—There shall be a Committee on Rules and a Committee on Instruction and Examination, each to consist of three members.

ARTICLE III.

Section 1.—The Chief Commander shall be the general executive officer, shall preside at all meetings, and take command of the fleet when, by general order, the boats of two or more squadrons are assembled together.

The Vice-Commander and Rear-Commander shall assist the Chief Commander in the discharge of his duties, and, in his absence, act in his stead.

In the absence of the foregoing officers, when two or more Local Squadrons are together, the senior officers present shall take command.

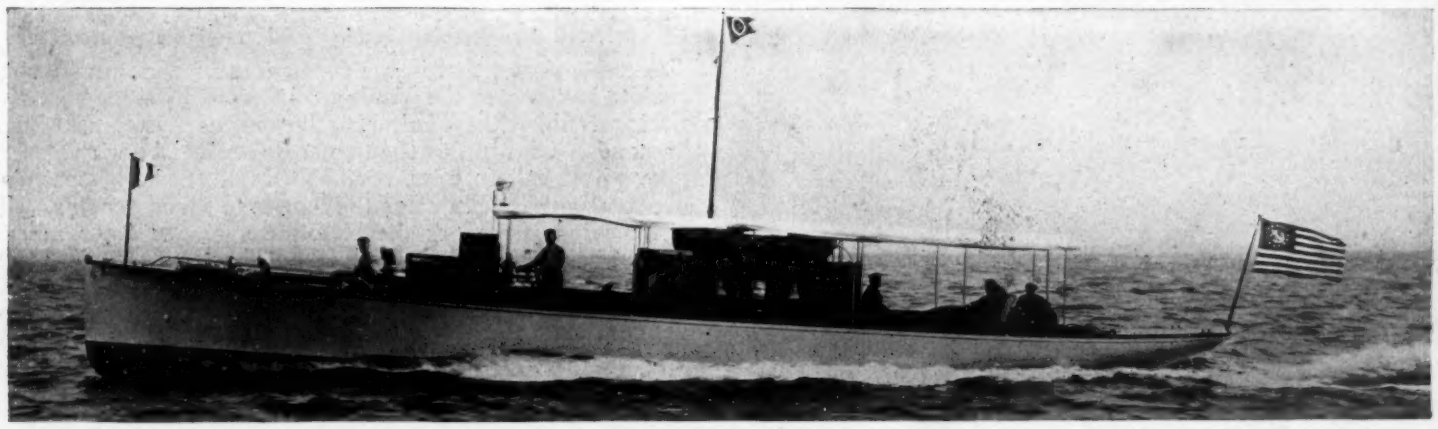
The Flag Lieutenant shall act as Aide to the Chief Commander, and as his representative for such duties as the Chief Commander shall designate, but he may not preside at meetings, or, by virtue of his position, take command of squadrons.

Secs. 2 and 3 pertain to the duties of Secretary and Treasurer, which are the usual ones for such offices.

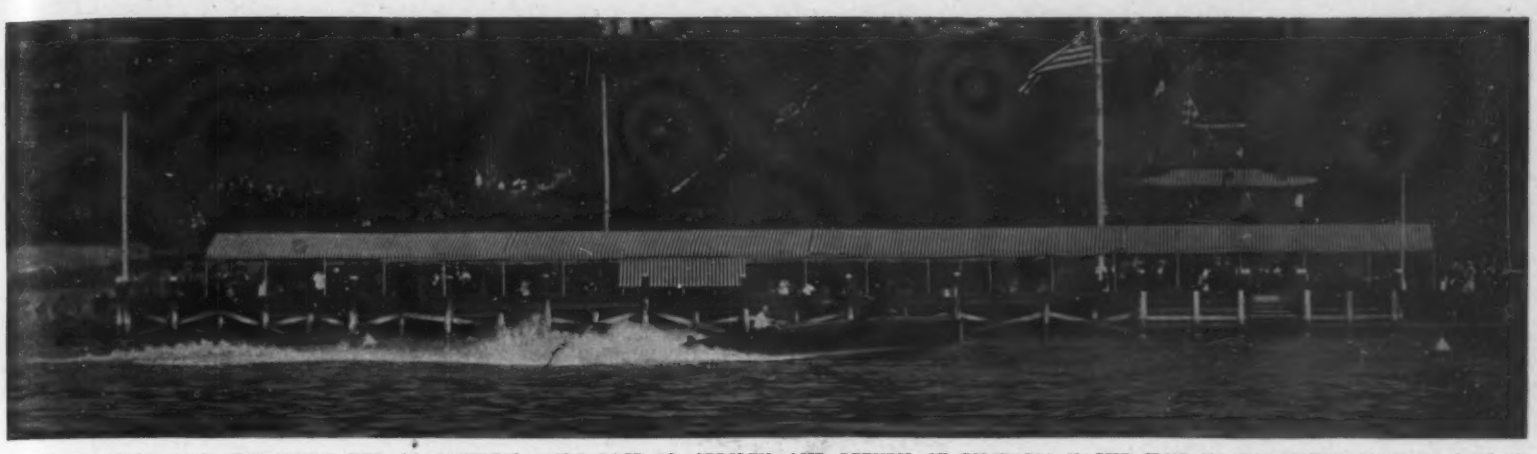
Sec. 4.—The Governing Board shall: (a) Have general charge of the policy and finances of the organization, and shall appropriate to the use of each committee such sums as may be deemed advisable for the interests of the organization and within its resources.

(b) Pass upon the application of Local Squadrons for membership in the United States Power Squadrons. * * *

Sec. 5.—The Committee on Rules shall receive, consider, formulate, and report upon such suggestions for changes in or amendments to the By-Laws, Rules and Signals, and may come from any source, and at the An-



BEAUMERE, A NEW 21-MILE TWIN-SCREW DAY CRUISER, BUILT BY THE GAS ENGINE & POWER CO. & C. L. SEABURY CO., FOR E. F. ALBEE



RELIANCE PETER PAN FINISHING THE 30-NAUTICAL MILE RACE TO ARDSLEY AND RETURN OF COLUMBIA YACHT CLUB IN THE RECORD TIME OF 1:05:30. THIS IS A NEW 26-FOOT DISPLACEMENT BOAT OF THE CINDERELLA TYPE, WHICH HAS MADE 36 7/10 MILES PER HOUR WITH A 90-H. P. FOUR-CYLINDER STERLING MOTOR

nual Meeting, or at any other general meeting, shall make recommendations as to what action should be taken regarding said changes.

Sec. 6.—The Committee on Instruction and Examination shall have general supervision of the Boards of Instruction and Examination in various geographical districts, shall see that said boards maintain suitable standards before awarding certificates, shall decide of what an examination shall consist, and shall see that in general the same examination shall be used by all of said boards.

ARTICLE IV.

Section 1.—A Local Power Squadron may be formed in any recognized yacht club, group of clubs, association of clubs, or other yachting organization in the United States, and only the members of said club or association shall be eligible as members of its Local Squadron, but no Local Squadron shall have less than ten boat-owning members.

Sec. 2.—Any such club or association which wishes to form a Local Power Squadron and join the United States Power Squadrons may make application to the Board of Instruction and Examination in its geographical district for examination of its members.

Sec. 3.—Only those individuals who satisfactorily pass the examination and are awarded certificates shall be recognized as members of the Local Squadron by the United States Power Squadrons.

Sec. 4.—No individual shall receive or hold a certificate, or fly the distinguishing flag, unless he is a member of a club which has a Local Squadron.

ARTICLE V.

Section 1.—Any Local Power Squadron formed in accordance with Article IV. shall be eligible to membership.

Sec. 2.—Any Local Power Squadron desiring membership in the United States Power Squadrons, shall make application to the Secretary of the Squadrons, who shall send notice of such application to each local squadron enrolled.

Sec. 3.—At any time after thirty days after said notice is mailed to Local Squadrons, the Governing Board may vote upon the application. Two negative votes shall exclude. Any squadron which has its application rejected, shall not apply again for membership for at least one year.

ARTICLE VI.

Section 1.—Any Local Squadron actually formed and admitted to membership, shall be allowed one delegate for from ten to twenty-five members, ten of whom shall own power boats, and one delegate for each additional twenty-five members or fraction thereof. Local Squadrons may vote by proxy at meetings.

ARTICLE VII.

Section 1.—The Annual Dues for each Local Squadron shall be Ten Dollars for each delegate to which it is entitled.

Sec. 2.—Upon notice of its election, a Local Squadron shall pay the dues for the current year within sixty days, in default of which its election shall be null and void.

ARTICLE IX.

Section 1.—There shall be three general meeting during the year:
(a) The Annual Meeting on the second Friday in February. (b) The second on the second Friday in June. (c) The third on the second Friday in November.

Sec. 2.—Special meetings may be called at any time by the Chief Commander, and shall be called by the Secretary at the official request of three Local Squadrons.

Sec. 3.—At any meeting five (5) delegates actually present, or two or more delegates with sufficient proxies to make a total of ten, shall constitute a quorum.

ARTICLE X.

Section 1.—At the November meeting a Nominating Committee of three shall be elected. This Committee shall select candidates for all elective officers and committees to be voted on at the Annual Meeting, and notify the Secretary in time for him to print the list of nominees and mail it with the call for the Annaul Meeting.

Sec. 3.—The Chief Commander, Vice-Commander, Rear-Commander, Secretary, Treasurer, the four Members at Large of the Governing Board, and the Members of the Committees on Rules and on Instruction and Examination shall be elected at the Annual Meeting by ballot, and shall hold office until the next Annual Meeting or until their successors are elected.

(*Continued on page 48*).

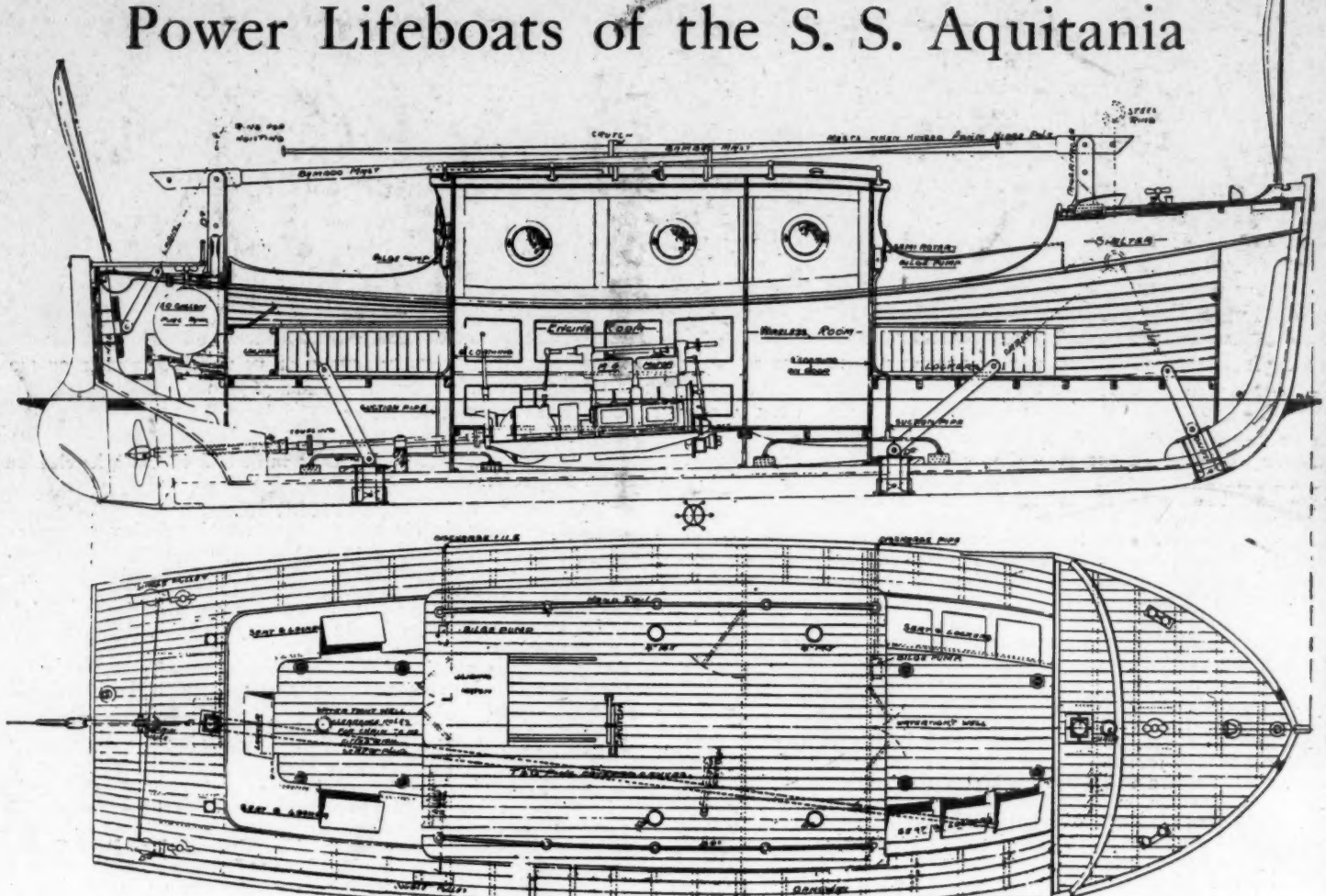
THE CHICAGO WATER CARNIVAL

Owing to the dates selected for the running of the British International Trophy Race in England, August 12 to 15, and the possibility that several of our fastest boats will be abroad at that time to take part in the event, it has been found necessary to change the date of the Third Annual Water Carnival and American Speed Boats Championship, which was to be held at Chicago the last week in August. The new dates selected are from September 19 to 26. The postponing of this event will probably result in a much larger fleet of speed boats at Chicago, and makes it possible for our fastest boats to compete both in the Internationals and in this later event. The committee announces that they expect to have two or possibly three of the Harmsworth Trophy team at this race, while there will probably be some foreign entries in the race for the Wrigley Trophy.

HYDRO BULLET. A NEW 26-FOOT SPEED BOAT OF THE YEAR, WHICH HAS STARTED IN WITH GREAT SUCCESS AT THE SOUTHERN REGATTAS

LURA A. A NEW SEMI-SPEED DAY CRUISER THAT HAS SHOWN A 22½-MILE GAIT WITH A FOUR-CYLINDER 5½ X 6-INCH ENGINE

Power Lifeboats of the S. S. Aquitania



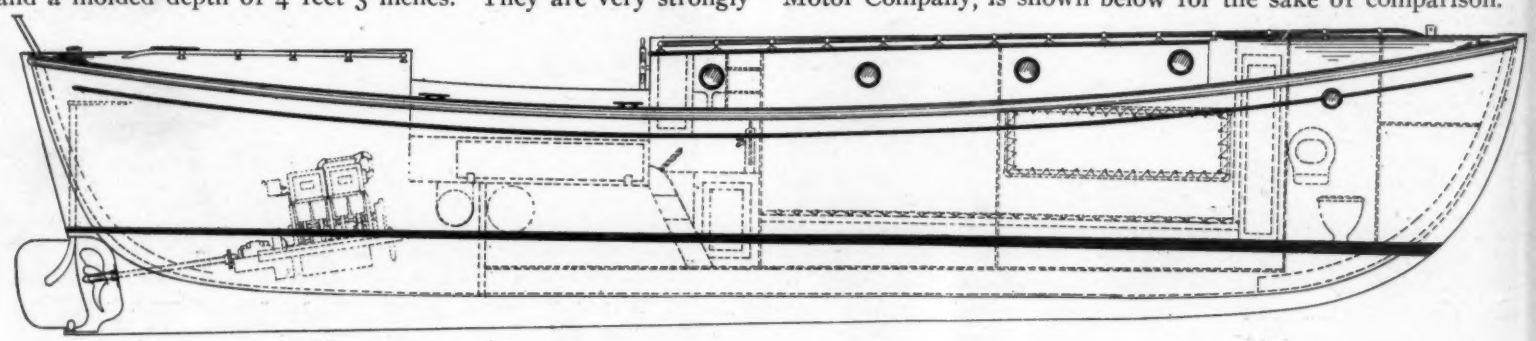
NOT the least interesting feature of the steamship Aquitania, which recently completed her first voyage to New York, were the two power lifeboats of her life-saving equipment. Ever since the loss of the Titanic two years ago unusual efforts have been made to get an adequate lifeboat equipment, and two things were found to be essential—some type of power other than oars for moving the boats, and a wireless outfit to get into communication with other vessels. Practically every new passenger steamer to-day is, therefore, equipped with a power lifeboat, and several of these boats have a complete wireless plant.

The boats on the Aquitania are particularly interesting, as they are of rather an unusual type, and differ from the development of the power lifeboat as it has gone forward in this country. The boats are designed to tow the ordinary ship's lifeboats away from the wreck and be able to handle a string of them afterwards so as to relieve the crew from rowing, while at the same time they can keep up communication with other vessels. The boats of the Aquitania seem to fulfill these conditions, and comply with the recommendations of the English Board of Trade.

The boats are 30 feet in length, with a beam of 9 feet 6 inches, and a molded depth of 4 feet 3 inches. They are very strongly built, have good sheer, full bows, with a considerable flare above the waterline forward and also in the after sections. The boats are ceiled in—that is, the forward and after cockpits are watertight while the engine is covered by a house over the center of the boat. The house is somewhat high, and, to our way of thinking, would detract somewhat from the efficiency of the boat in a gale of wind. There are no air tanks, as in the usual lifeboats, though there is a very complete pumping system.

The power is a 30 horsepower four-cylinder kerosene motor installed amidships, the fuel being carried in a 50-gallon tank under the after deck. Just forward of the engine is the wireless room. The masts of the wireless are hinged and fold over on top of the house when the boat is aboard ship. The outfit has a radius of 300 miles, the necessary current being generated by the engine.

While the boat seems efficient to our mind she cannot compare in ability and seaworthy qualities with the power lifeboats of the American type, which are used in the United States Life Saving Service, and which have recently been adapted for use on ocean-going vessels, with facilities for wireless outfit and for towing purposes. A type of one of these boats, built by the Holmes Motor Company, is shown below for the sake of comparison.



THE M'LELLAN TYPE OF POWER LIFEBOAT USED IN THIS COUNTRY

GETTING IN THE JIB TOPSAIL

A NOON SIGHT WITH THE "HOG YOKE"

A Deep-Water Cruise in a 50-Tonner

By A. E. DINGLE

[Three yachtsmen, Nason, Morley and the "Skipper," have chartered the ketch rigged yacht Gladys, 54 feet long on the water, for a cruise across to the West Indies and Caribbean. They, with one paid hand and a boy, "Skimps," for cook, make up the crew. The first port of call is the Azores, which they make nine days out from Dartmouth, England. From there they touch at Madeira and at Orotava, in the Canaries, under the shadow of the Peak of Teneriffe.]

CHAPTER III

"DOING the Peak" of Teneriffe has been written so often, and in such variety of style, that much description may be omitted here to good purpose. The object of this log is to interest, rather than to bore, the sailor who reads it; and with that object ahead, little bits which may safely bear retelling, and which *may* be found free from the guide-book flavor, have been passed in.

The Peak is 12,000 feet in height and the trip usually occupies twenty hours. It is a journey to be prepared for with some care, unless one wants to risk semi-starvation and over-night exposure on the arid wastes below the summit. We made arrangements for two guides and a horse for each of our party, and—mark this, you yachtsmen who may contemplate making the trip—we did not trust to promises to have the provision basket sent on after us; we got it packed and *carried it along with us* To this bit of forethought we were indebted for a reasonably comfortable ascent.

A start was made at four o'clock in the morning, and we took the regular road, if road it can be called, up a stony and steep track more like the bed of a mountain torrent than a path, and soon were enjoying the view that opened out with the dawn. We emerged above the clouds in a little more than three hours, and enjoyed an *al fresco* breakfast in the novel position of sitting on the slopes of an island whose shores were margined by a sea of cloud.

We left the horses at the Alta Vista, intending to tackle the balance of the journey on foot. It is usual to make this latter part of the trip by mule, but we reckoned on beating mule time by going on the hoof and traveling light. The going was bad, that's the very mildest term one can apply. Over humps and hillocks of lava rock, sinking, in places, half-knee deep in ash of the consistency of soot, progress was painfully slow; the old joke about making one step forward and two backward came much nearer realization here than we had ever expected to experience. The entire surface of the Peak itself is composed of volcanic ash and a black, powdered chalk, and as the whole thing has an angle of something like forty-five degrees, the climbing is plenty steep enough for sea legs. While no eruption has taken place on Teneriffe for two hundred years, yet the ground is always hot. One may speedily make a miniature volcano by the simple process of poking a stick into the earth, when a jet of sulphurous steam will appear in a twinkling.

Much has been said of the magnificent prospect commanded from the Peak; and considering the altitude, such there must be beyond a doubt. Unfortunately, we shall have to take the statement on trust, unless perchance we come back at some future day, for when we made the ascent the clouds obscured everything below and around us. We were able to get only fleeting glimpses of the other islands of the Canaries group, and these stood out of an ocean of vapor like half-tide rocks at low water.

Going down was quicker, if not much easier, than going up, and we were back in Orotava by eleven o'clock, dog-tired and utterly surfeited with mountaineering.

Teneriffe, apart from the Peak itself, has a most varied list of show places, but we all hankered after the good old ocean breezes again, so our visits were curtailed considerably. Our paid hands were entitled to shore leave, so Jack and Skimps took twenty-four hours' liberty and did the rest for us, while we laid in a supply of fresh fruit—which, by the way, went bad in a day—and in a leisurely way made ready for sea.

Our next port was to be St. Vincent, in the Cape Verde Islands, distant about 850 miles. There we proposed taking in a supply of provisions to carry us across to Trinidad, B. W. I. The vegetables and fruit in Orotava were very nice and looked good, but they had a peculiar knack of perishing or wilting within twenty-four hours of being picked. They were out of the question as stores for a sailing vessel, and no more were taken aboard. Water and ice we shipped, also some additions to Jack's poultry pen, and when the liberty men reported "come aboard" nothing remained but to get sail on the yacht and pick up our anchor.

We nosed out of Orotava at nine o'clock at night, and found the true trade wind blowing out of the N. E. Good time was made through the night, and when the sun came over the ocean rim in the morning we took our last peep at the Peak, a dark smudge in a maze of woolly clouds.

Passing between Teneriffe and Gomera, we did not sight Las Palmas, taking the southern point of Hierro for our departure. This point, being right on the 18th meridian, and well laid down, gave us a good comparison for our chronometer. The biggest shoal of flying fish yet seen was raised shortly before noon sights, supplying the cabin and fo'cs'le tables with excellent food without depleting the cook's locker in the least, so far as fish were concerned.

We had the N. E. trades in good earnest now, and the Gladys made some rattling good runs, the log for one twenty-four-hour stretch showing 216 miles. Our position by observation gave a distance only four miles short of that number, and we had every promise of a rapid passage to the Cape Verdes.

Those old-time mariners who wrote their names on the primitive maps of the world in Magellan's and Vasco de Gama's day, conducting their lumbering, crazy old butter tubs of ships to every corner of the known and unknown oceans, must have hung up

"THE WATER SPOUTED THROUGH THE SCUPPERS HALF WAY ACROSS THE DECK"

their little leaden images in the rigging and burnt many candles to their *Patrons* in thanks for the hard, steady drive of the wholesome northeast trade wind, enabling them once in a while to reel off a record run of a hundred miles or so.

Our lively ketch frisked along as if she enjoyed the going, and would have effectually converted the most rabid motor-boat bug, had one happened to be aboard. Over the long, even, deep-water swell she swept, as steady as a thousand-tonner, and only occasionally flipping a shower of spray over the bows just to remind us that we were at sea, and not regatta sailing round the swell summer resorts. The patent log gave forth a musical hum, and the tinkle of the bell, as the miles were passed, had to be heard to be given its true value.

So satisfied were all hands with the continued run of good performances by that log, that, had we not arranged to take in our big stock of stores in St. Vincent, we would not have touched there at all, but borne away westward for the American side at once.

We passed under the sun on the fifth day out from Orotava in lat. 17° 30″ N., and thereafter looked to the north instead of the south for Old Sol when we needed his assistance in finding our whereabouts. Those navigators, amateur or professional, who have tried to get sights when zenith distance reads "0," will appreciate the crick in the neck caused by the effort.

Our days assumed a degree of regularity which would have been monotonous in a steamer. But who can ever feel monotony in a beautiful wind-jammer, enjoying fresh, brisk breezes? Instead of the thumpity-thump, rackety-crash, growling rumble of engines, we had the singing of straining canvas and the Æolian harp of tautly strained rigging, with the murmuring harmony of a sparkling, tumbling bow wave. The scene was set in a vast bowl of limitless blue, under a dome of brighter hue, flecked with woolly masses of fleeting trade wind clouds. It would be a misanthrope indeed who could see no beauty in such days as those. We had none of that breed aboard our vessel. It was with regret, almost, that we turned into the port on the sixth day out from Orotava—regret that such prosaic details as stores should have compelled us to break the delightful tenor of our way.

St. Vincent is in latitude 16° 40′ N. and is some 475 miles off the African coast. It is emphatically not to be mentioned in the same breath as Madeira or the Azores for beauty, the seaward aspect being dark and uninviting to the last degree. It is not a place to visit for pleasure, but the splendid harbor of Porto Grande, and the varied products of the islands, available for ship's stores, will always make it a favored port of call for vessels using that trade route in the Cape business.

Porto Grande looked as if it might be a town in the making whose architect had omitted to provide for any shade trees or verdure of any kind. Certainly it gave one the impression of being uncomfortably exposed to the blaze of the sun, but natives told us that the perpetual trade winds kept the temperature within bearable limits. The beach to the front and right of the town, instead of being white, was black, or nearly so; simply a sloping expanse of volcanic débris, which seemed to hold out no very bright prospects of good fresh water. Our stores, however, mostly came from other islands of the group, and we did very well indeed by waiting a day for the agent to get the stuff together after we had placed our orders.

Among other things taken aboard were goat milk and goat milk cheese, several jars of delicious honey—quite a treat, this—fruit and green vegetables, and a sack of sweet potatoes. Our farm yard was augmented by the addition of more chickens and some ducks, and Skimps' eyes popped out until they resembled hat-pegs when we hoisted up the gangway a kicking, squealing porker. We had told him, before it arrived, that we were shipping a mate for him in the galley. Maybe he had just begun to catch on to the joke.

As the next leg of our traverse was to take us on a real ocean passage of nearly twenty-five hundred miles, clear across the Atlantic, we spent a couple of busy days overhauling all the gear, reeving off new halyards and sheets wherever they were needed, and setting up all the wire standing rigging. All the cabin and fo'cs'le sleeping outfits, saloon cushions, carpets, curtains, and our personal clothing, were taken on deck for a thorough airing and a good sun bath.

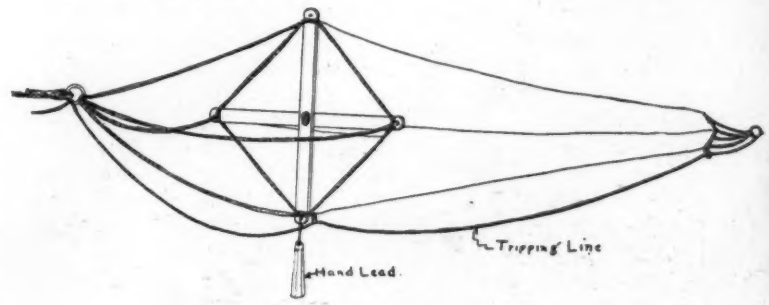
The yacht had made the 850 miles of the last stretch in five days and fifteen hours. We could scarcely hope to maintain that average on the longer passage, facing possibilities of gales or calms further west, and we took the last day before sailing for a stand-easy all round, only absolutely necessary work being done. At night we took a chance by leaving the ship to look after herself, while all hands and the cook put in a full night of uninterrupted sleep.

CHAPTER IV

Promptly at sunrise all hands were turned to, and the business of bathing and washing decks went along hand in hand. Instead of taking our plunge over the side, as usual, we simply pitched buckets of water over each other on deck, and then gave a hand with the brooms while drying out. Sails were loosed from covers and gaskets, the mizzen hoisted, and the anchor hove short, while breakfast was being prepared.

All took the morning meal together on this occasion, and at eight bells the mains'l was sweated up good and flat, the jib hoisted and anchor broken out, and away we went, heading for the south point of San Antao, from which we took our departure for Trinidad, West Indies.

The course and distance, by Mercator sailing, worked out to S. 80° W., 2,220 miles, roughly. Being within ten to fifteen degrees of the equator, there was not very much to be gained by sailing on the Great Circle, especially as we had the N. E. trades steady and fair for our course. In fact, it was doubtful if we would gain as much distance by circle sailing as we should lose in speed by hauling up to lay the course. The course was set at



OUR RIDING DRAG OR SEA ANCHOR

W. ¾ S., and the yacht was given every rag that would hang on her, bringing the lee side down until the water spouted up through the scuppers and half-way across the deck.

That was sailing! Splendid, exhilarating sport, and it is reasonably certain that no cruiser under steam could have been started off on a run of over 2,000 miles at a better speed, unless she were a huge floating hotel, with almost unlimited bunker capacity and a man-o'-war's crew in her stoke-hold.

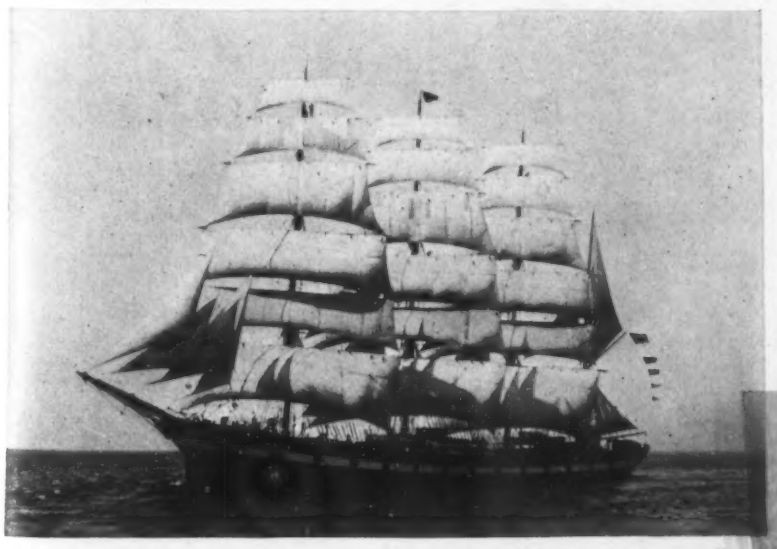
When fairly under way, with sail trimmed to the fair notheasterly, the wheel was becketed and we had the pleasure of watching the ship sail herself for half an hour on end, and keep within a quarter point either side of her course. That allowed all hands to join in whatever diversion was started on deck for our amusement. And in view of the long trip before us, all hands saw the necessity of a regular plan of recreation which would eliminate the chance of the company tiring of each other's society during the fine weather. We had no fears of being bored in the event of dirty weather setting in; that would of itself keep us all busy.

"A GREAT STEEL CLIPPER CAME OUT OF THE NORTHEAST, RUNNING DOWN THE TRADES, AND CROSSED OUR BOW"

In the necessarily confined space available on the deck of a fifty-ton vessel, it is astonishing what a variety of sport can be had, if the people seeking recreation are keen enough to do the same as children do—make believe a bit.

There was shooting, the targets being bottles tied to a line and towing from the end of the main boom. It required skill to hit them, too, as they skipped from wave to wave with a most uncertain jump. Then a shuffle-board was marked out on the weather side, and a grand tournament commenced for the championship of the Atlantic. This game, with the shooting, on which there were pools, would have alone sufficed to keep us amused for the passage had any difficulty been experienced in devising other pastimes.

Sweepstakes were held on each day's run, and a "kitty" was formed to go to the winner of any day's run which exceeded 250 miles. This, we expected, would grow to generous proportions before it was taken up. Forty-five miles were reeled off by noon on the first day out. As we drew out from under the lee of the islands, we felt the stronger scend of the sea and the heavier thrust of the breeze, warning us to take in the lighter sails and carry only our working rig of mains'l, mizzen, fores'l and jib, with a working gaff-tops'l. This lowered our speed a bit, but we doubtless made a better average all round, as the yacht required little or no watching, and the log showed a fairly level gait of eight knots or thereabouts.



"WE EXCHANGED THE COURTESY OF THE SEA WITH A CAPE HORNER"

Among other items on the amusement schedule, we had arranged to hold a go-as-you-please smoking concert on deck in the dog-watches. The evening after leaving St. Vincent was the date fixed for our first show. There was instrumental music (alleged) by the skipper, who murdered some perfectly good old numbers on a perfectly atrocious old mandolin. It went down, however, in the absence of better. Songs, ancient and modern, of the sea, the farm, and the stage were roared out over the wide ocean, to the utter astonishment of our feathered followers from the islands. All hands, fore and aft, had to chip in with a number of some kind, no excuses being considered, and the evening's fun was a howling success. It was also somewhat of a departure from the regular routine of the cruise.

After the years that have slipped by, one contribution to the fund of vocal gems stands out in memory. Skimps, after many entreaties and as much persuasion as would suffice to wheedle a song from a boarding school miss, hoisted himself on his hind legs and favored the company with a ditty, of which the great hit was this refrain:

"Oh, they sarved it out with a waterin' can,
A teaspoonful for every man;
We got so fat we couldn't stand
To sarve in the Hungry Army."

Where it came from nobody knows. Skimps alone knew it, but that refrain was heard at all kinds of odd times for the remainder of the voyage. Fair or foul the weather, trimming sail, shaving, at the wheel or at table, it was long odds on that Hungry Army figuring somewhere in the piece.

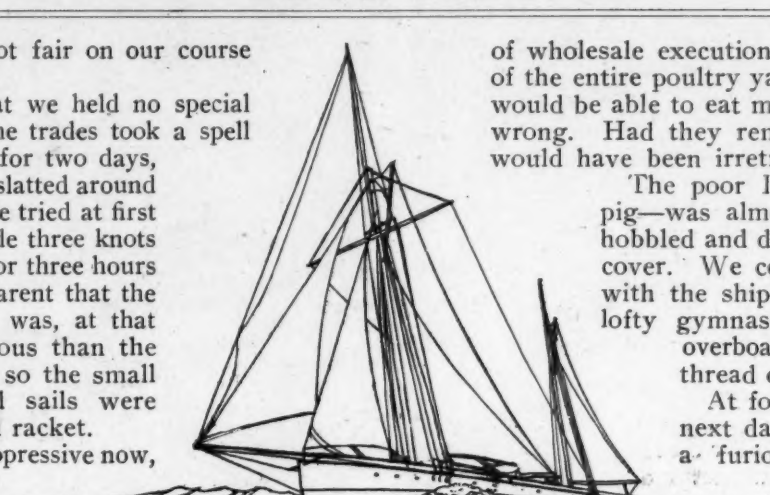
The Dog Watch Café Chantant was unanimously voted on the permanent list of amusements, and, except the one night when the yacht was hove-to in a howling gale, was held every evening from six to eight o'clock.

As we drew more to the westward and got out of the steam lanes to the Cape, only an occasional windjammer was sighted. The vast prospect of speckless ocean day after day brought with it a sense of the immensity of old Father Neptune's domain, making our small barky appear as a mere chip afloat. For all that, she was to us a good substantial chip, and, once accustomed to the feeling of isolation, she seemed as big and solid as the stateliest liner.

Our first full day's run totaled 195 miles, the wind drawing a bit more easterly, and the second and third days the log read 205

and 194, respectively, every knot fair on our course with nothing for leeway.

Then, as if to remind us that we held no special permit from Admiral Boreas, the trades took a spell off duty, and a flat calm set in for two days, during which the ship rolled and slatted around in approved doldrum fasion. We tried at first towing with the launch, and made three knots an hour that way, but after two or three hours of chug-chugging it became apparent that the calm had come to stay. Fuel was, at that period of the trip, more precious than the loss of a few hours of sailing, so the small boat came aboard again and sails were stowed to stop the slatting and racket.



"GLADYS MADE SOME RATTLING GOOD DAY'S RUNS"

The heat was uncomfortably oppressive now, for the first time, and half-way through the second day of calm the air became sultry and yet more oppressive, while the glass dropped a tenth in less than two hours. A heavy, sullen swell rolled up out of the northeast, and there was every appearance of dirty weather. All our stock of weather lore was rustled up to meet the emergency, when it should arrive.

The big riding drag, or sea anchor, was got on deck and made ready for launching if required; two reefs were tied in the mizzen, and double gaskets passed round all the other sails except the fores'l. Gear below was stowed as safely as wits could devise means, and all having been done which was humanly possible, we stayed round on deck awaiting developments.

At eight o'clock the next morning the mercury had fallen to 29.4, and fitful puffs came out of the N. N. E. By nine o'clock the glass read 29 and the wind had increased to a moderate gale, the yacht jogging easily along under mizzen and fores'l. Then, the wind veering to the eastward and increasing, we hove-to with the fore-sheet to windward, and held on to see what next was coming along. Barometer falling rapidly until it stood at 28.6, and the wind veering southerly, bringing up a very heavy, vicious sea, the fores'l was quickly stowed and the sea-anchor got overboard with a stout hawser bent on. The mizzen was close-reefed, with sheet hauled flat amidships.

All this time the wind kept veering until it settled awhile at S. S. E., blowing a whole gale and whipping off the tops of the seas and sending them on deck in veritable lumps. The appearance of the weather at this time was distinctly ugly—and our small vessel was put to such a test as rarely befalls the average yacht. There is not the slightest doubt in our minds that our safety was due to the sea-anchor; no sail—that is to say, yacht sail—could possibly have stood for ten minutes in the furious gusts that prevailed for nearly a whole day. And though she might have been hove-to on the proper tack to meet the requirements of the rules laid down in "The Law of Storms," so heavy was the sea, and so confused, that without the drag the Gladys would have surely been badly damaged, even if she had not actually foundered out of hand.

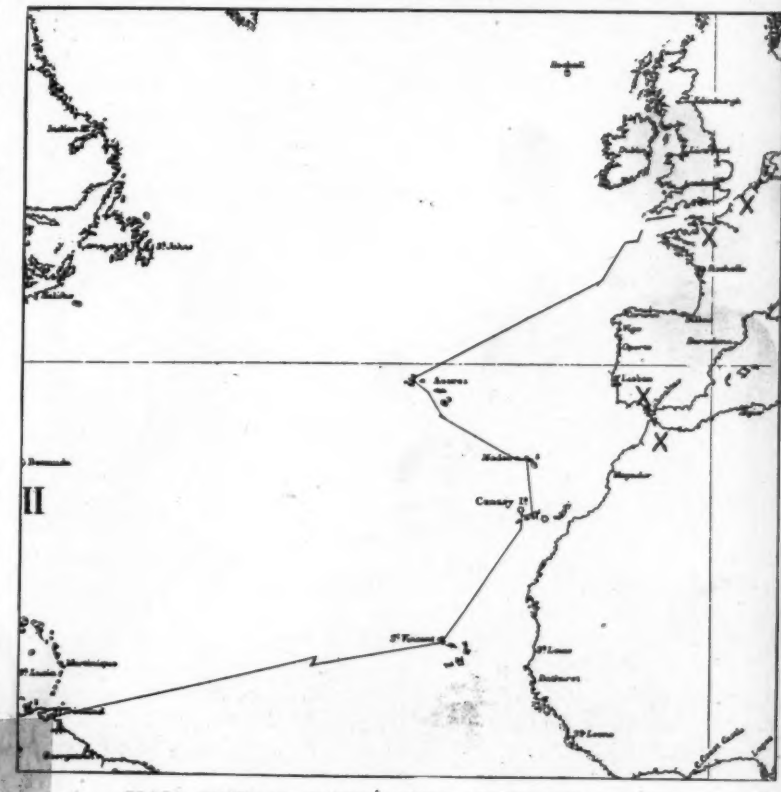
With the drag, however, and a good scope of cable, the yacht behaved well, and as long as the hawser held there was not much real danger. Discomfort was another matter, and during the evening hours, when the gale was at its fiercest, life-lines were stretched along the deck fore and aft, and not a move was made without their aid.

The unfortunate inmates of the poultry coop for'ard were soon in dire straits, several chickens giving up the ghost with a last despairing cackle. Even the ducks did not show the appreciation of unlimited water that one would expect. When quite half of the bedraggled birds had expressed their disapproval of things by letting go their hold on life, Bayne concluded that the rest would be better off in the ice-box than floating about on deck. He summoned Skimps to assist, and together they conducted a sort of wholesale execution. By this summary wiping out of the entire poultry yard there was some hope that we would be able to eat most of the fowl before they went wrong. Had they remained on deck the whole flock would have been irretrievably lost.

The poor Dennis—meaning, of course, the pig—was almost as badly off, until he was hobbled and dropped into the launch under the cover. We could not very well execute him, with the ship doing all kinds of ground and lofty gymnastics, and as for throwing him overboard—not while there remained a thread of hope of the weather breaking!

At four o'clock in the morning of the next day the gale reached its climax in a furious squall from south, lasting about half an hour, and raising the very devil with the already cross-tempered sea. The waves had been tumbling aboard from all quarters since the breeze started, and when the last shift of wind came it really seemed that the big combers would swamp the vessel. A happy inspiration suggested oil-bags, and after a gallon of heavy oil had been hung from either bowsprit-whisker in a canvas bag, the seas did not break as badly and the yacht rode much easier. The oil-bags should have been attached to the drag when first launched overboard, but in the hurry it had not been thought of until the hawser was paid out. Hauling in again was not to be thought of with no sail on the yacht.

Between six and eight o'clock in the morning the gale moderated, and the glass started on the rise, giving promise of a break in the weather. Though there was still a nasty sea running, the wind having backed into the E. N. E. just before eight bells, the drag was tripped and taken aboard and the yacht put on her course before the wind under close-reefed mains'l and fores'l. The net result of the two days' calm and the twenty-four hours' gale was a loss in distance of 39 miles, the amount we had been set to the north-eastward while hove-to and riding to the drag.



TRACK CHART OF GLADYS' ROUTE ACROSS THE ATLANTIC

By noon the gale had blown itself out and the fresh northeasterly trades were to the fore again. The sea hourly grew less vicious, and before the afternoon watch was up the yacht was carrying her full suit once more. Old Sol showed himself early enough for a P. M. sight for longitude, and with sufficient power to allow of the damp cabin gear being spread out for an airing—which it needed badly.

The distance run, up to the noon following, was 198 miles, this being for the twenty-eight hours since resuming our course. Then our next day's run dropped to 90 miles, and it seemed as if we were not to make such a good passage as we thought. But on the tenth day out we hung up a score of 151, and thereafter never dropped below that figure.

(To be Continued)

Bumpers

By RALPH KALE

PERSONALLY, Joe, I think dead reckoning was invented to entice young, reckless sea-dogs out of the straight and narrow path of the channel and then assist them to locate the rocks very accurately—so that they can't miss 'em, in short.

Rocks? Sure. What would our grand old Long Island Sound be without rocks? Millions of 'em. "Rocks to right of them, rocks to left of and under them, rocks—" Why, say, what the famous old Light Brigade had to gallop against was nothing compared to what any young Sound salt has to tackle. At least those noble six hundred could see the cannon balls coming their way, whereas the rocks are hidden. I don't mean to give you the impression that the Sound is composed entirely of rocks. Not at all! A little water has been poured in to permit of a craft floating—from one rock to another.

As I started to say, though, it was while we—Peter and I—went chasing the call of the briny deep in a scientific way that we took a few casual whacks at various young boulders, and *vice versa*. We found it a simple matter to scrape up an intimacy with most of the rocks which our cruel chart-makers maliciously strewed about in these waters. Don't ask me how many boats we demolished thereby! I lost the count after the third. But say, we did execute some neat short cuts. That's the alluring stunt for you—short cutting!

Peter Rourke was an adept in this branch of sea science. He was a born sailor. I guess he descended from one of the old Norsemen. His weather-beaten countenance exuded a sort of briny atmosphere. His "habitat" was snooping around boats or else submarining in the science of navigation. To get local color he would sit on a dock in the city and fill his soul by the hour on an antiquated lumber schooner tied there.

In less than a week after I had gotten acquainted with Peter, he had infected me with a regular boat frenzy. We planned and executed—verbally—enough long-distance cruises to fill a five-yard shelf of mind food. We even considered to the last detail a two-years' jaunt around the world. And just to keep our hands in, we wig-wagged some of our conversation.

Our mutual tendencies culminated in the purchase of an 18-foot catboat—a staunch and roomy skipjack. Limit IX was its *nom de plume*. The previous owner had caught us in the act of jabbing knives into her—we were applying the professional test—and offered to let us have her on easy payments. But I suspect the reason we bought it was because he promised to include a large compass, some old charts and a sounding line with the bargain. Anyway, within ten hours we had it safely moored at a small boathouse eight miles nearer home, so that——

What's that? The rocks? Oh, yes! But cheer up, Joe, I'll ram one for you soon. Fact is, that for the first few weeks after our debut into yachting we followed shamefully in the wake of the excursion and tugboats. It took us a whole month to arrive at a stage where we could safely disregard the channel.

During this period Peter was intent on getting the Limit IX properly outfitted. He had certain fixed ideas as to equipment. A couple of emergency compasses were laid in first, so that we then had one liquid, one dry and one other. Charts, of which he bought about a dozen—their scope covering our own Atlantic coast and part of South America—we stored on the port side. "Nothing like being prepared;" said Peter. A good second-hand steamer log was put into a compartment aft, together with the lead lines. Next to this was the library in which we kept our navigation and yachting data. A barometer, the international flag code, some fog horns and a three-foot telescope were tucked up forward with the sea-anchor. We also laid two life preservers as a flooring. Then we painted on a new water line, two inches higher all around. Anyway, I guess few ocean dachshunds had us beaten in navigation tools.

Strange to say, though, Peter was not content to carry this paraphernalia around in the usual way it is done on shipboard. He found most of it useful during our little week-end jibings. Thus we picked up a superior knowledge of the grounds. We began to slaughter distances and to disregard the channel. Besides, we found a kind of zest in sailing successfully within ten feet of the notorious rocks. To simply cruise around in any haphazard manner didn't satisfy us. No, sir! We'd consider it a crime to leave our mooring, even for a short sail, without having figured out a most minute and detailed compass course. Every inch of unnecessary sailing distance was vehemently tabooed.

Fact is, we had a sort of tolerance for those amateurs who

"INTENT ON GETTING THE LIMIT IX PROPERLY EQUIPPED"

"WITH A CHART IN ONE HAND AND SOUNDING LINE IN THE OTHER"

would set out and plug along in the general direction of somewhere without knowing how to box a compass. Perhaps they didn't even have one to box. They probably were unaware that charts had been invented. Well, they could land-lubber it that way if they chose. No doubt they'd fetch up on a rock some day and then they'd be stung. That is, they wouldn't even know which particular rock had bumped 'em.

Right there we had a distinct advantage over these chaps. If, perchance, we did break a few stout sailboat planks over an unfortunate rock's head, we'd know to a second its latitude and longitude, and could call it by its regular Christian name. There's the beauty of cruising by science. A chap knows exactly where he stands. Besides, it's worth while to be able to place your finger at random on any part of a chart and to give expression to certain brisk sailing directions, such as these:

"Allowing for deviation a half point west, and for variation a quarter point east, we'll set a course northwest by west to Frog's Neck; from there we'll make the Stony Point lighthouse to west, after which we'll cut over west-a-quarter-north and take soundings to Ohlson's Reef, and then allowing for tide and leeway, we'll head north by east a half east to——"

Whoa! Where was I? Gee, when I get started on that tack I've got to be stopped forcibly. But, of course, you followed me there. Eh? You didn't get those directions? Surprised at you, Joe. A fairly simple combination like that, too.

But that's nothing. Peter would consider those directions very crude, even lubberly. He'd place his finger on that same point and forthwith evolve a series of short cuts to it that would turn a polar explorer warm with envy. Given any reasonable depth to go by, the chances are that he would totally disregard the channel. He'd inform you that any "dub" could sail by way of the channel. Then he'd set a course that would cut the usual sailing distance fully in half, and shave every worthy rock along the way.

Thereby hangs the reason why the Limit IX suffered an early death at our hands. As the saying goes, "Familiarity breeds contempt." Thus it followed that one of our most familiar boulders waited for a bright day in August to hinder our progress and to rend us completely asunder.

We had set sail that morning for a point called Oak Neck. By the ordinary channel route the distance was twelve miles, but by Peter's course it would be only eight. I manipulated the tiller while Peter sat up forward surrounded by an assortment of dead reckoning tools, and gave me subdued instructions for our course. With a chart in one hand and a sounding line in the other he had simply to sing out, from the compass set up forward, to either port or starboard my helm, as necessary.

With a good, healthy breeze shoving us along we reached a spot about half-way to the Neck in rapid time. We had but to squeeze by one rock, after which we would have clear sailing. As to that, however, we had no fears. We knew precisely where the rock lay. It reposed hidden some thirty yards off shore, so that a little swerve to about five yards on either side of it would give us plenty of water.

As we neared the point off which lay the rock, Peter arose and threw a calculating glance forward. Although we had used that pass a dozen times before, we always took the precaution of estimating the thirty yards off shore to guide us.

"Port a little," said Peter, nonchalantly.

"Aye, aye, Cap," I responded; "how's this?"

"Hold her there," he commanded.

The little old Limit IX was then sizzling along at record speed. Our log brought it up to eight knots. What's that? Eight knots sounds good?—Say, Joe, I'll just bet you that— Oh, well, what's the difference? Anyway, we were humming along, excessively so. A few minutes more would see us safely past the danger point. Peter stood up and peered over the side. Then, suddenly:

"Hard-a-starboard!" he yelled.

Immediately I swung her over.

"Right, let her run."

Those were Peter's last words aboard the Limit IX. Following them we should have skinned by the rock—only we didn't. The sighs which had formed within us were never sighed. Simply because that large and unfeeling boulder had edged over and planted a playful uppercut right through our bottom. And we could prove it.

Well, that's about all, barring a few minor details.

Simultaneously with the crash, and before you could say, "Scuttled, by cripes!" we sank. There was no fuss about it; no leaking or bailing. We simply sank totally and right off. Peter, still clutching the sounding line, used his new overhand stroke to shore, beating me in by two yards.

Eh? The Limit IX? Oh, I guess parts of her are still submarining around somewhere.

Hard luck? Most emphatically not. There was no luck about it. Didn't we know that the rock was there? And didn't we deliberately go over and dare it to interfere with our progress? Just plain and fancy foolishness, that's all it was. However, we demolished several other vessels, successively and in a similar manner, before we joined the "brotherhood of prevention of cruelty to rocks." Its members strongly believe that the channels contain enough pure briny water wherein they may occasionally demonstrate their modest skill in the *"science a la maritime."*

But, say, navigation is truly an absorbing sport.

The Small Power Tender

The Solution of the Problem for the Man with the Small Yacht

By H. S. LAWRENCE

THIS is the age of mechanical propulsion. So completely has the gasolene engine invaded every field that many forms of human effort are rapidly becoming an unknown quantity. On the water the internal combustion engine is fast supplanting every other type of power. Even the sailboat man is getting to lean more and more upon some mechanical means of "getting there" when the wind fails, and, outside of purely racing boats, probably every sailboat uses power on the average two-thirds of the time to one-third sail.

THIS 10-FOOT "DINK" WOULD BE TOO SMALL TO INSTAL POWER, YET SHE MAKES AN EFFICIENT LITTLE POWER TENDER WITH AN OUTBOARD MOTOR WITHOUT THE LOSS OF ROOM

Not content with mechanical propulsion aboard his boat, everyone now feels that he must have also power aboard his tender, or "dink," no matter how small the latter may be, until there is a danger that handling the "white ash" will be become a lost art. There is good reason for this, however, for once the usefulness of power in a tender has been experienced no one would go back to rowing.

On a small power boat or yacht, under 45 feet in length, the problem of a suitable power tender is a very live one, and one sees many good boats spoiled by trying to lug an unsuitable power tender. In the first place, a 12-foot boat is about as small as one would recommend for the installation of power. A 13 or 14-foot boat is probably the average size of power tenders in which the engine is installed in a boat. For the average yacht, 45 feet in length, a power tender of this size is too large and heavy to swing on davits without affecting the trim or stability of the boat, and, if towed through the water, it makes much more of a drag than an ordinary rowing tender of the same size.

If the yacht is a sailboat, a power tender of that size would make a big difference in her sailing qualities, especially in light weather, while in heavy weather the skipper and crew would have their hands full of trouble with her, as everyone who has handled a power tender at the end of a long painter knows. If she filled, as dinghies that are towed frequently do, there is every prospect of losing her, as she would sink from the weight of the engine; and, even if protected by a canvas or khaki cover, water will find its way inside in bad weather, until the boat settles, so that the cover is almost no protection, the water working up under the edges over the gunwale. In these cases it is impossible to put a man aboard the small boat to bale, and one soon finds a nasty mess on his hands. As illustrative of the inconvenience of too large a tender, one case that comes to mind of a 14-foot power tender that was carried on the davits on an auxiliary yawl 60 feet over all. The power tender was lightly built and probably did not weigh over 500 pounds, complete, yet she was so wide that she could not be swung inboard without topping her up over the house, while if swung outboard she was frequently in the water when the boat was hove down when sailed hard, at the imminent risk of being carried away.

To the man with a small boat who wants a power tender (and every man does), it would seem that the outboard or so-called "portable" motors are the solution of the problem. In the first place, no dinghy is too small to be fitted with an engine of this type, while they are equally suitable for boats up to 14 or 16 feet in length. If the "dink" has to be towed the engine can be unclamped quickly and stowed aboard the yacht, while the towing qualities of the tender are not impaired. The same holds true if the boat is carried on davits, and, instead of a power tender weighing from 400 to 600 pounds, one is only carrying a light "dink" weighing from 80 or 90 to 150 pounds. This is a big difference when supported on davits swung outboard, or when hauling the boat up on deck by hand, as frequently has to be done in boats under 40 feet in length.

Another advantage that this type of power offers is that the whole interior of the boat is left free for the use of the crew,

EVEN A 9-FOOTER, WEIGHING ONLY 60 POUNDS, CAN BE MADE INTO A POWER TENDER FOR A SMALL BOAT

BRINGING SUPPLIES ABOARD; 300 POUNDS OF ICE CARRIED IN A 14-FOOT DINK WITH AN OUTBOARD MOTOR

WHERE ONE MUST TOW A TENDER A BOAT LIKE THIS WITH AN OUTBOARD MOTOR MAKES THE ONLY SUITABLE OUTFIT

and is not cut up, as is the case with an engine installed amidships, in the widest and best part of the boat, leaving only the bow and stern for use. This makes a big difference in a small boat 10 or 12 feet in length. Such a boat used as a rowing tender would probably carry four people, while with the motive power installed amidships the carrying capacity is cut almost one-half. Yet, with an outboard motor, weighing some 60 pounds, clamped to the stern, the carrying capacity of the boat is not reduced in any way. With the ordinary 12-foot rowing tender the rowing is done either from amidships or from the bow seat, and in a boat of this size the passengers have to stow themselves carefully and the oarsman has to row gingerly or else some one is going to get poked in the back with the handles of the oars. A 12-foot tender equipped with a detachable engine will handle just as many people as can be packed into it without leaving room for the oarsman.

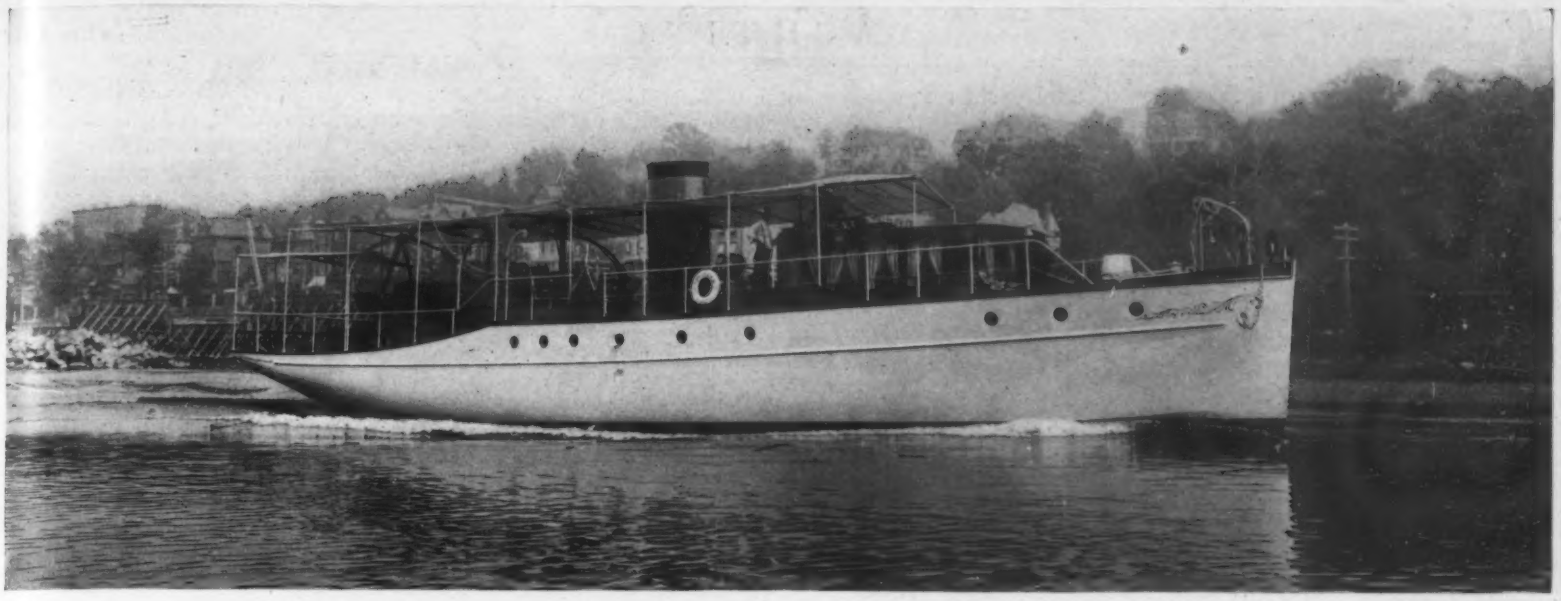
In regards to power, most tenders for the small boat carry an engine of from 1½ to 3 horsepower. The same power may be had in portable motors, the various makes running from 1½ to 3½ horsepower, and weighing complete from 50 to 100 pounds, with an average probably 65 pounds.

Another advantage of this type is that the expense and trouble of installing a motor are eliminated. In the case of a boat already built this is considerable, for frequently a heavy keel has to be fitted to take the shaft log, or the deadwood has to be cut away. The ordinary power tender, also, is unsuited for rowing purposes if for any reason it becomes necessary to row, while with a portable motor attached the rowing qualities of the boat are in no way affected. In cost, also, everything seems to be in favor of the portable motor. While the first cost of the engine may be the same, the cost of installation is eliminated and also the fitting of the tank, gasolene feed line, exhaust piping, etc., and there is no muffler tucked away under a seat to burn a hole in the white trousers or the skirt of an unwary passenger, or scorch the woodwork.

While most of these portable motors turn at a high speed of from 800 to 1,000 revolutions per minute, and the propeller is therefore small, yet at a pinch, in smooth water, they will tow a larger boat up to 3 or 3½ miles an hour, depending on the size of the motor and the size of the boat being towed. Many yachtsmen have looked upon this type of power askance, believing that they were a toy and would not do heavy work under hard conditions. This is not so. I recall a case where one of these motors, of only 1½ horsepower, was put on an 18-foot sailing dory and covered 50 miles at a stretch at a rate of nearly 6 miles an hour. During that time the engine did not heat, balk, or give any trouble at all, and the same motor has stood up through several seasons of use. The owner of one of these outfits, who furnished one of the photographs reproduced here, writes the following about the usefulness of the little boat: "I am enclosing a photograph showing my 14-foot tender in which the writer was bringing back 300 pounds of ice to refill the ice chest of the yacht. This took place at a fishing station on Lake Superior, and the cruiser was tied up at a wharf more than a mile away from the ice house, which could not be reached conveniently except by small boats. It is for just such work as this that the detachable engine comes in, and if this 14-footer had been equipped with an engine inboard, installed in the regular way, it would have required two trips to get this one load of ice, as only half the amount could have been stowed in the boat. The same would be the case if the tender was to be rowed. You will note from the photograph that both the rowing seats are entirely covered by the ice, and there was just about room enough for the helmsman in the stern. The engine, being outboard, took up no room."

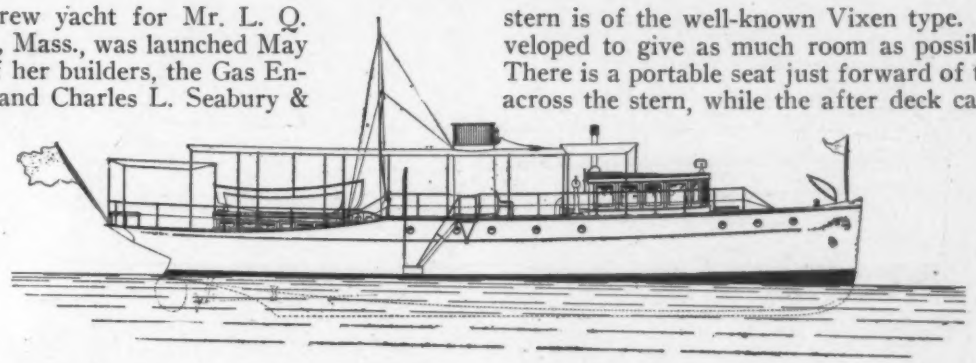
Any man who has experienced the trials of taking care of a 14 or 16-foot power tender on a boat under 45 feet in length, and who has found that the trouble more than offset the usefulness of the outfit for a boat of this size, might find a solution of his problem in a well-designed and lightly-built rowing tender equipped with one of these portable motors.

A V-BOTTOM BOAT OF THE AMERICAN TYPE FOR THE CONSTANTINOPLE POLICE ADMINISTRATION. SHE IS 29½ FEET IN LENGTH WITH A BEAM OF 5 FEET 9 INCHES, MAHOGANY PLANKED, AND WAS DESIGNED AND BUILT IN CONSTANTINOPLE. THE ENGINE IS A 30-50-HORSEPOWER STERLING, AND ON HER OFFICIAL TRIALS THE BOAT DEVELOPED A SPEED OF 21 MILES PER HOUR, WITH SEVEN PERSONS ABOARD



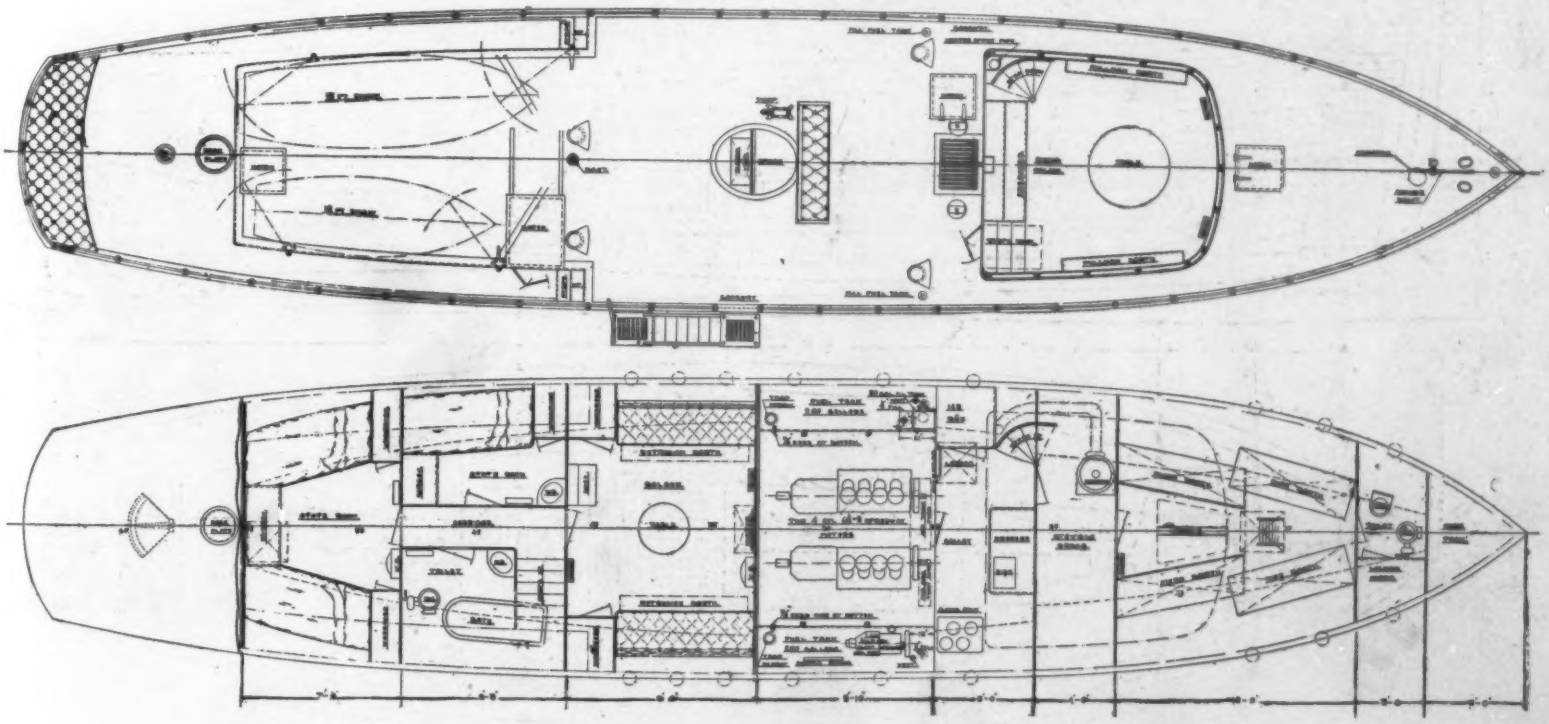
A 70-Foot Twin Screw Cruiser

A 70-FOOT twin-screw yacht for Mr. L. Q. White, of Boston, Mass., was launched May 9 at the works of her builders, the Gas Engine & Power Company and Charles L. Seabury & Co., Consolidated, Morris Heights, New York City. The Edithena, as the boat was christened, was designed by the builders under the personal supervision of Mr. White. She is to be used at Buzzards Bay during the summer and in Florida during the winter, and is completely fitted for both winter and summer cruising.



The yacht's dimensions are: Length overall, 75 feet; beam, 15 feet, and draft, 4 feet. She is flush decked, with a raised deck forward and a trunk cabin aft. The bow is plumb, while the stern is of the well-known Vixen type. The flush deck was developed to give as much room as possible on deck for dancing. There is a portable seat just forward of the stack and another aft across the stern, while the after deck can also accommodate five or six wicker chairs. There is a bridge at the after end of the deck house with steering wheel, engine room telegraph, etc.

The dining saloon is in the deck house with a stairway leading to the galley below. This room is fitted with a folding Pullman berth on either side and has a large buffet at the after end. Below decks the quarters consist of a forecastle forward with accommodations for six men. Abaft the forecastle is the galley, between the two being a hot water heater which is connected with radiators throughout the boat.



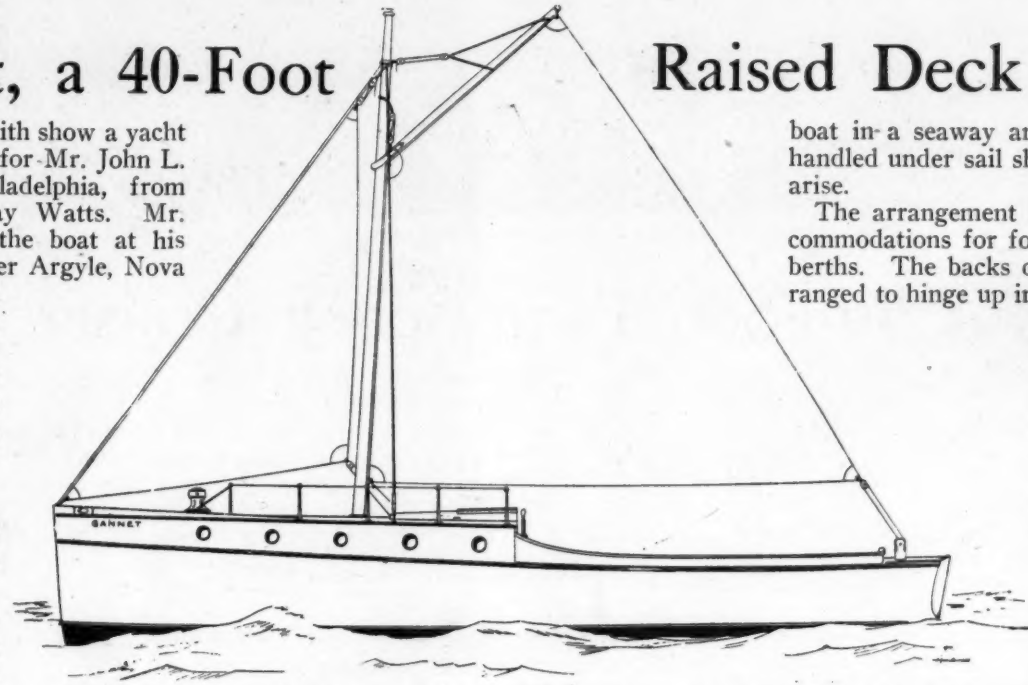
The galley is fitted with a Speedway alcohol yacht range, ice box, sink, etc.

Next comes the engine room with a steel watertight bulkhead at either end. Here are installed two "Speedway" four-cylinder 50-65 horsepower engines with all the necessary auxiliaries for lighting, pumping, etc. These engines are designed to run at from 500 to 650 revolutions per minute and will give the boat a cruising speed of 10 to 12 miles an hour. The fuel tanks are also in this compartment, and have a total capacity of 400 gallons.

The after cabin contains the owner's quarters, and is entered by a companionway on the starboard side. It contains a main saloon with extension berths on either side, large lockers, desk, table, etc. Abaft of this saloon is a large double owner's state room, a single state room, and a large toilet room with bath tub and usual appliances. There is plenty of locker room, with dressers, bureaus, and the like. All the joiner work throughout the yacht is of mahogany. There is a full equipment of electric fans, and all hatches and deck openings will be screened. She is an unusually complete boat and will make an ideal coastwise cruiser.

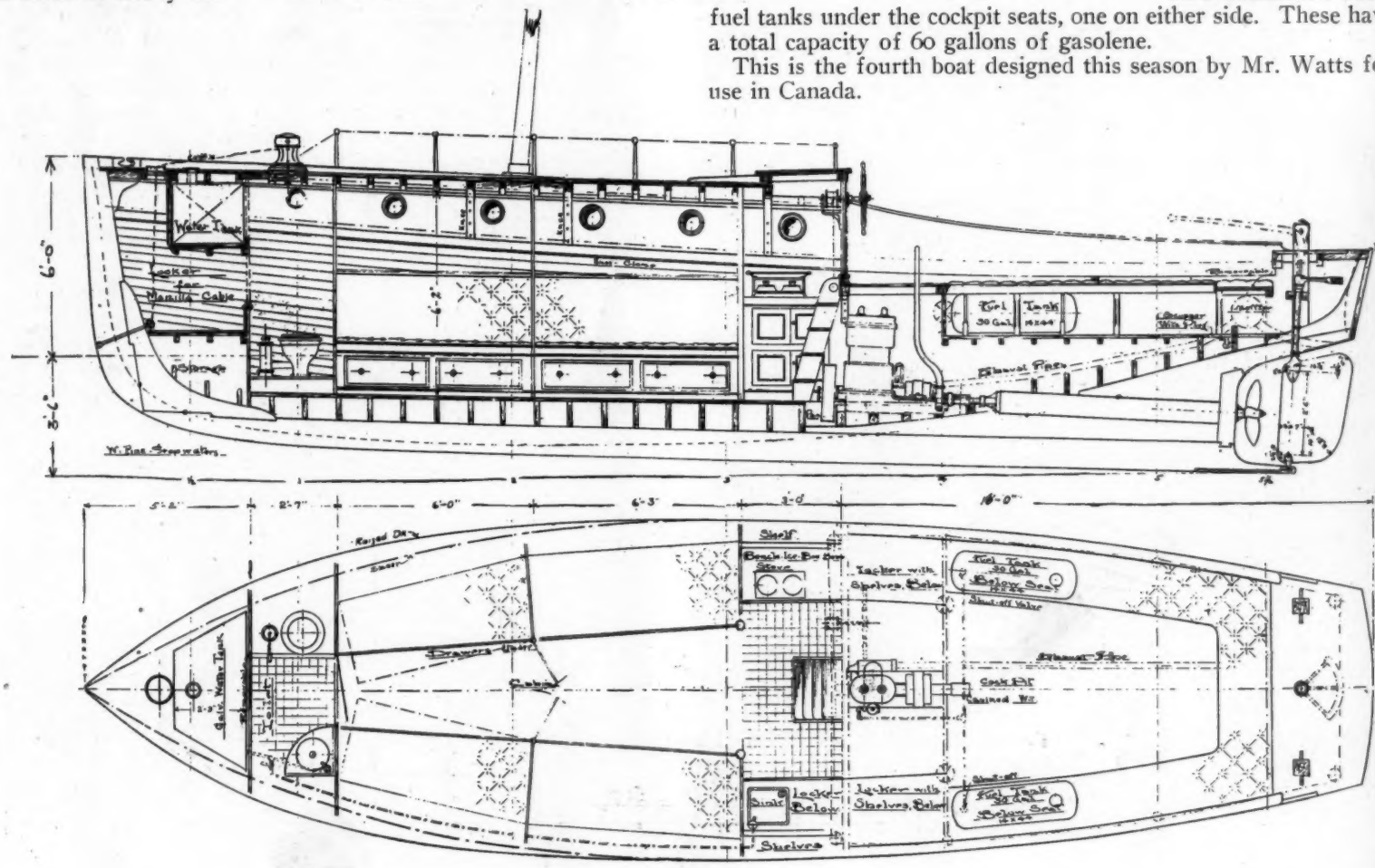
Gannet, a 40-Foot Raised Deck Cruiser

THE plans herewith show a yacht now building for Mr. John L. Cox, of Philadelphia, from designs by J. Murray Watts. Mr. Cox intends to use the boat at his country place at Lower Argyle, Nova Scotia. The general dimensions of the boat are: 40 feet length overall, 38 feet waterline, 10 feet 3 inches beam and 3 feet 8 inches draft. She is very heavily built, as it is the intention of the owner to use her for long off-shore cruises. For this reason a substantial auxiliary rig is fitted to steady the boat in a seaway and to enable her to be handled under sail should the occasion ever arise.

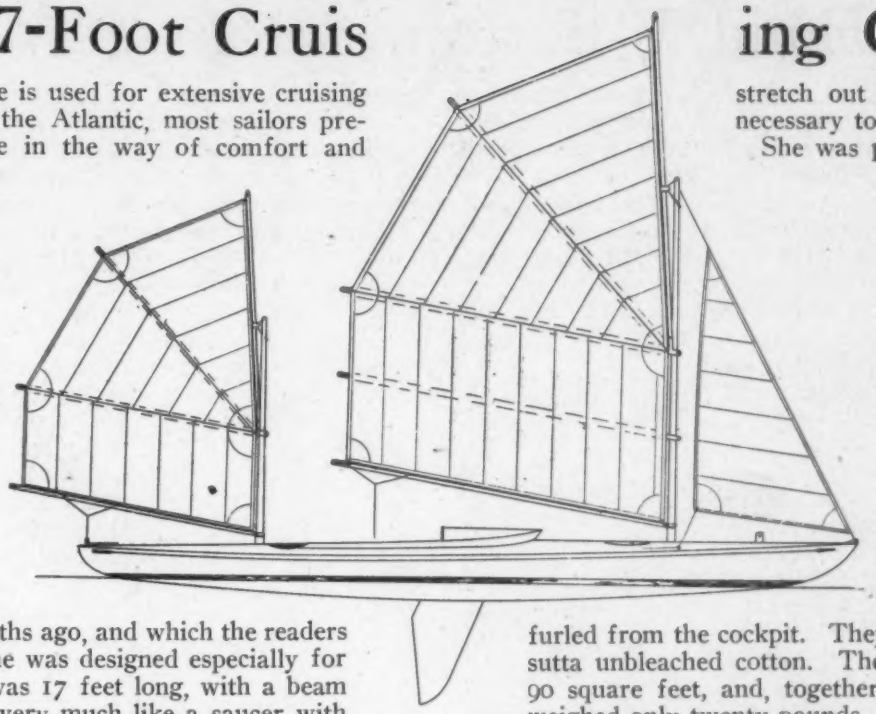


The arrangement shows comfortable accommodations for four people on extension berths. The backs of these berths are arranged to hinge up in case of an emergency so that four more guests, or eight in all, can be accommodated. There is a toilet room forward, a galley aft, and the engine, a two-cylinder four-cycle, is located under the bridge deck. A feature of the boat is the very large cockpit, nearly 10 feet in length. There are two seamless steel fuel tanks under the cockpit seats, one on either side. These have a total capacity of 60 gallons of gasolene.

This is the fourth boat designed this season by Mr. Watts for use in Canada.



A 17-Foot Cruising Canoe



IT is not often that a canoe is used for extensive cruising on the open waters of the Atlantic, most sailors preferring something more in the way of comfort and ability. Yet this little boat whose plans are shown here, successfully made a cruise from Grenada, one of the Windward group of the West Indies, up to St. Lucia and Martinique, many of the runs being from 40 to 50 miles in length across the open water between the various islands with nothing to leeward for 1,500 miles.

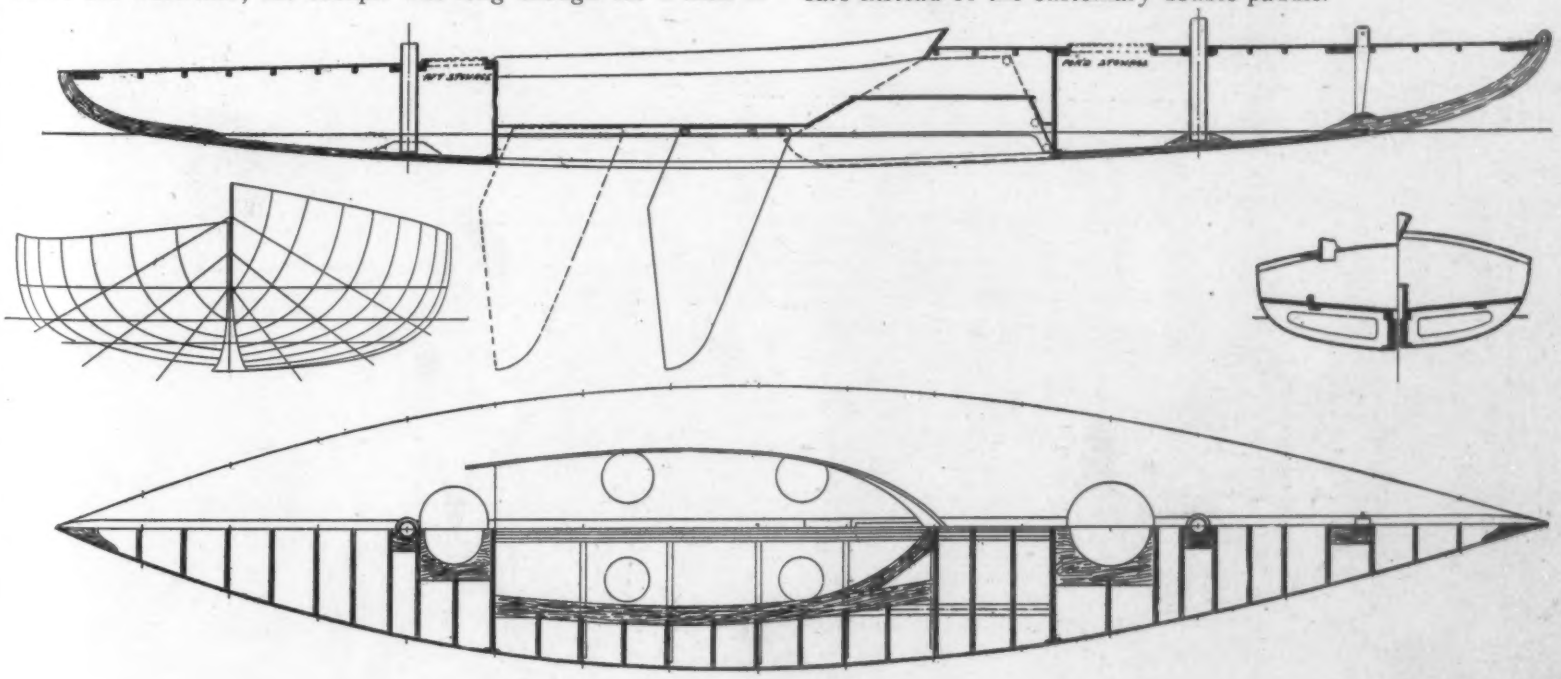
She was built, and sailed on this trip, by Mr. F. A. Fenger, who designed the 38-foot cruising ketch which we published some months ago, and which the readers of YACHTING may recall. She was designed especially for this trip by her owner, and was 17 feet long, with a beam of 39 inches. She is shaped very much like a saucer with plenty of flare, well-rounded overhangs, and a powerful midship section, wherein lay the secret of her ability. Her owner says of her: "She weighed only 143 pounds, half of which was embodied in her middle third. With her crew and the heavier part of the outfit stowed in this middle third, she was surprisingly quick in a seaway. With a huge breaking sea coming head on, her snoopy bow would rise up through the foamy crest, while her stern would drop into the hollow behind, offering no resistance to the rising bow. True to her antecedents, I found later that in a heavy seaway she would dodge and twist and turn like a cow pony, and when those fierce tropical squalls blew down she would lie to with her mizzen up, like a tired gull resting in a gale—wherein lay another secret. She had no rudder, and when lying to in a squall and going astern, there was consequently no afterplane to interfere with her backward progress, so that with her centerboard well forward, and her acting sail plan well aft she centered herself into the wind's eye like a weather vane."

The boat has three compartments, all of equal length, the center one being a cockpit, and the two end ones being watertight, accessible through watertight hatches. The volume of the cockpit was diminished by one-half by means of a watertight floor raised above the waterline; the cockpit was long enough for a man to stretch out at full length when it was necessary to sleep on board.

She was planked with three pieces of Spanish cedar on each side, one-quarter of an inch thick. The seams where the planks met were beveled together and followed on the inside by a light stringer one-half inch wide and an inch and a quarter deep. This made a very strong and light construction.

Her rig consisted of two fore-and-aft fan sails of the canoe type and a small jib. They were rigged on single halliards and could be hoisted, reefed and furled from the cockpit. They were home made of Wamsutta unbleached cotton. The three sails had an area of 90 square feet, and, together with their spars and gear, weighed only twenty pounds.

The boat carried no rudder, the steering being done by handling the main sheet. Mr. Fenger says, regarding this feature: "Steering was accomplished through a novel construction of centerboard and well in which the board rolled forward and aft on sets of wheels in a track, and could therefore be set in any desired position. Thus I could in practice place the center of lateral resistance of the canoe's underbody exactly under the center of effort of the sails, with the result that on a given course the canoe would sail herself. Small deviations such as those caused by waves throwing her bow off the course and sudden puffs that tended to make her luff were taken care of by easing off or hauling in on the mainsheet. And speaking of puffs and luffing, it is interesting to note that in the absence of the rudder plane aft, which at times is a considerable drag to a swinging stern, this type of canoe eats her way to windward in every squall without losing headway, executing a 'pilot's luff,' and in puffy weather will actually fetch up slightly to windward of her course, having more than overcome her drift. She was no new and untried freak, for I had already cruised over 1,000 miles in the predecessor of this canoe, the only difference being that the newer boat was nine inches greater in beam. On account of the increased beam it was necessary to use oars instead of the customary double paddle."



A Single-Hand V-Bottom Sloop of Novel Type

THE plans of the little 21-foot, single-handed sloop from designs by J. L. Foster, of Orcas, Washington, are such a departure from the conventional model of this type that they should prove extremely interesting. The boat was designed and is being built for a yachtsman at West Lynn, Mass., who wanted a single-hander with sleeping accommodations for two, with, after that had been provided, speed as a prime asset.

The dimensions of the boat are: Length over all, 21 feet 9½ inches; length on load waterline, 16 feet 3 inches; beam, 5 feet 9 inches; beam at load waterline, 4 feet 1 inch; draft, 1 foot 10½ inches; draft with outside keel, 2 feet ½ inch.

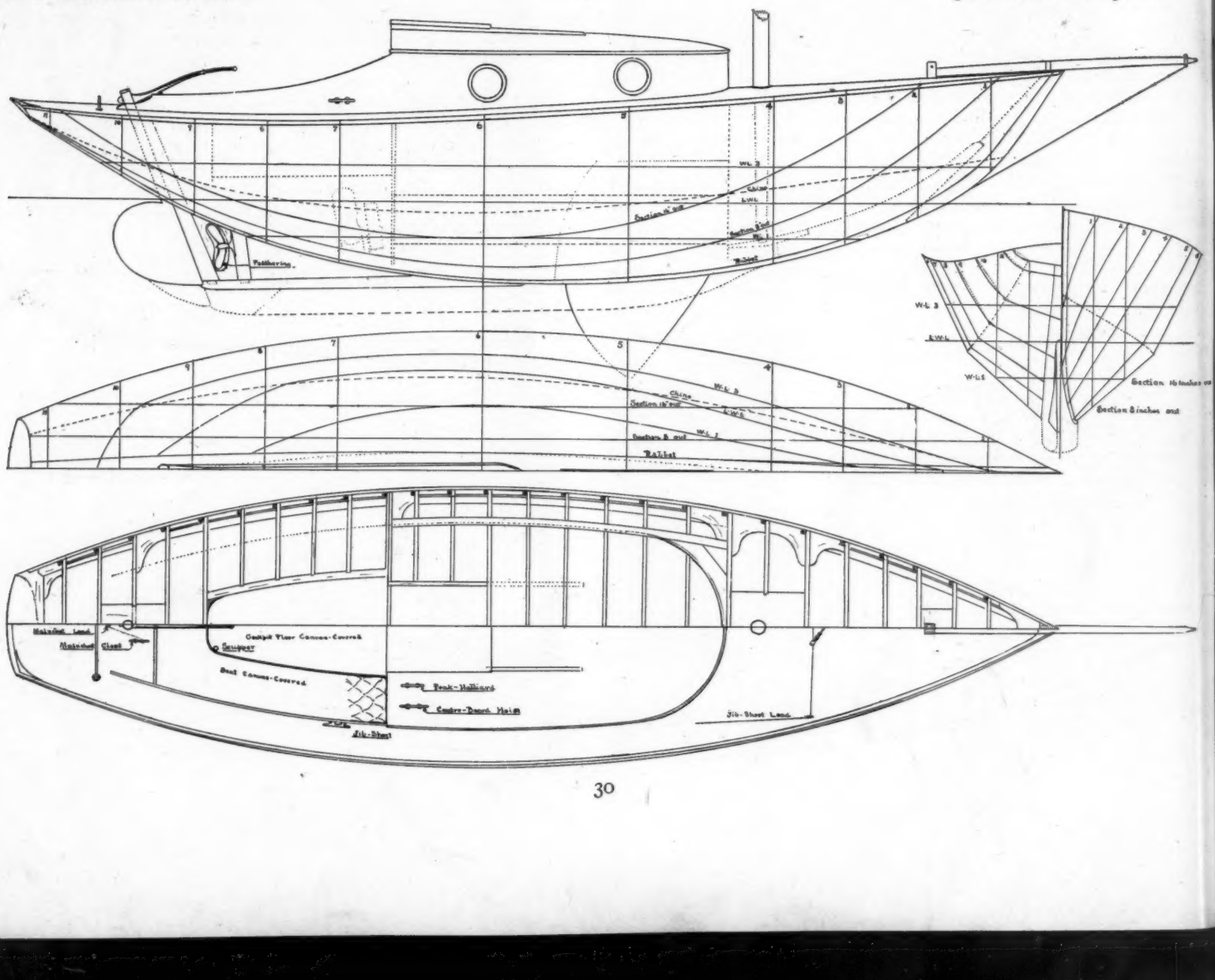
The designer says the following about the model:

"The fine form with moderate beam drives easily and requires but a modest sail plan for speed. The total area is 260 square feet. A small sail plan is more easily handled by one man and causes less stress to the hull than would the large area which a hard-driving hull would be compelled to carry. This design is at her best in a breeze and a lop.

"During many years of observation and practice I have always been in favor of a long, keen entrance, and, whether on round or V-framed boats, believe in vertical V-sections in the forebody; the absence of all shock when meeting a head sea is noticeable as compared with U sections. In the present plan the hollow, flaring bow sections slice easily down into a wave till brought to without shock by the flare. The loose water does not ride up and aboard, as with rounded bow sections, but is turned outward and downwards. Even a sea to stem-head finds a keen entrance and there is no check. The point of the model which allows of high speed is the fine lee entrance at any angle of heel. This is due to the elimination of shoulder, as is shown by the clear-cut flatness in sweep of the forward fore-and-aft section (buttock) lines. The waterlines of many cruising yachts are rounded full to the bow. This is all right on a shallow, scow-like body, but on a deep-keel form, with buttock lines rising forward at a steep curve, results (when heeled to 20°) in a lee bow entrance with curve as full as a canal barge and a big bow wave to push."

The construction and framing of the boat is simple, making her easy to build and comparatively inexpensive. The cabin accommodations consist of a transom berth on either side, sleeping two.

The boat shows the influence of the narrow cutter type, and, in our mind, hardly has sufficient bearings, so that she would probably sail on her side, as do most of the narrow cutters, while she has not displacement enough to carry the lead mine that the old cutters did to get stability. We also think that the board might be larger to give more lateral plane.



The Early Races for the America's Cup

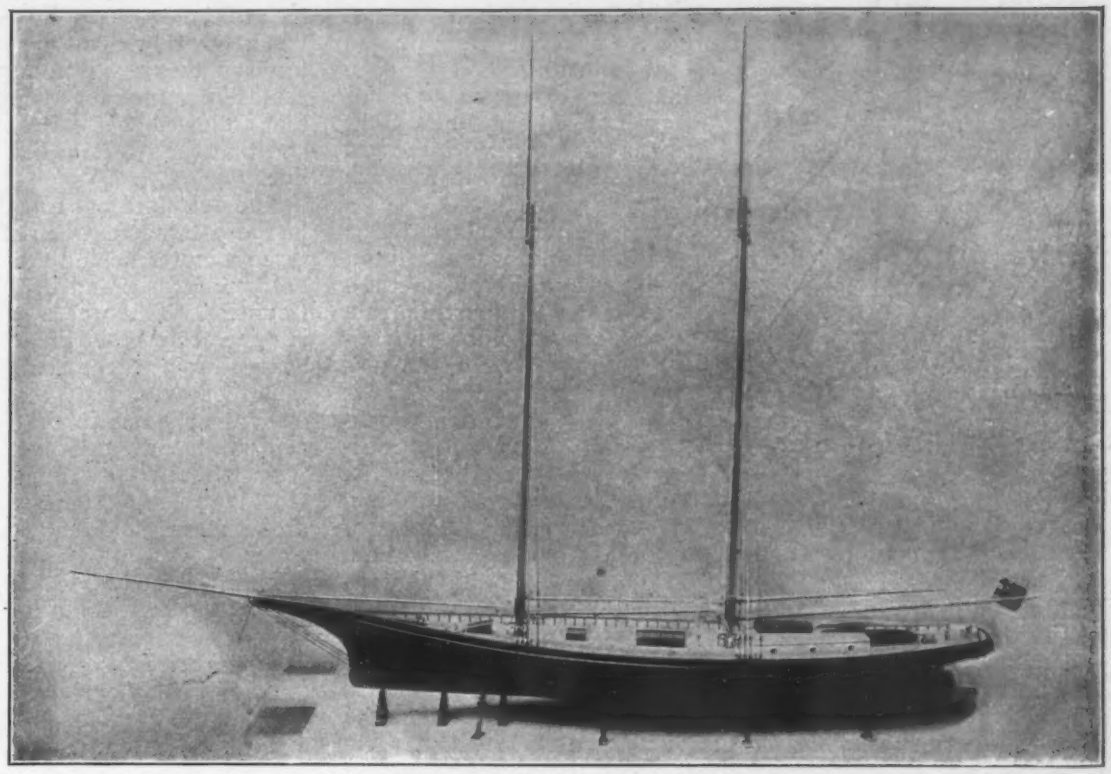
By HERBERT L. STONE

Photographs by Courtesy of H. E. Boucher Manufacturing Company

AFTER Mr. Ashbury, with his letter-writing propensities, had departed after his two defeats for the Cup in 1870 and 1871, five years passed without a challenge. Finally, in the spring of 1876, a letter was received by the New York Yacht Club from the Royal Canadian Yacht Club of Toronto, challenging in behalf of Canada for a race that summer and asking the club to waive the six months' notice. The yacht named by the Canadians was the schooner Countess of Dufferin, owned by a syndicate headed by the vice-commodore of the club, Major Charles Gifford.

The New York Yacht Club was ready for a race, and not only waived the six months' clause, but offered a series of three races instead of one, in July, one of them to be over the inside course, one over the outside, and the third to be determined by lot.

But Major Gifford asked even more than this and wanted the New York Yacht Club to name one boat only to meet the Canadian yacht, instead of a number of boats, one of which was to be picked the day of the race, as in the race of 1871. His position, as he stated it, was that he had to name one boat which had to take all the chances as to light or heavy weather, and it was only fair to have the defenders to do the same, and not choose a light or a heavy weather boat the morning of the race, as the conditions might warrant.



MODEL OF THE CANADIAN SCHOONER COUNTESS OF DUFFERIN, A CHALLENGER FOR THE CUP IN 1876

He was asking only what would be considered to-day a "square deal," and though under the terms by which it held the Cup the New York Yacht Club could have refused this demand if it saw fit, it is gratifying to note that by a vote of eleven to five it acceded to the challenger's request. Ever since then the club has followed this course and picked one boat only to meet a foreign yacht in races for the Cup, an action that undoubtedly was in line with the sportsmanlike spirit and intent of the original donors. There was a good deal of discussion of the matter at the time, some of the newspaper writers praising the club for its action and others blaming it, holding that Major Gifford should have been content with the same terms under which Mr. Ashbury raced, and insisting that in a yacht race it was perfectly legitimate for a club to accord to the other fellow just as little as possible, a position that is, fortunately, no longer tenable in the light of present-day sporting ethics.

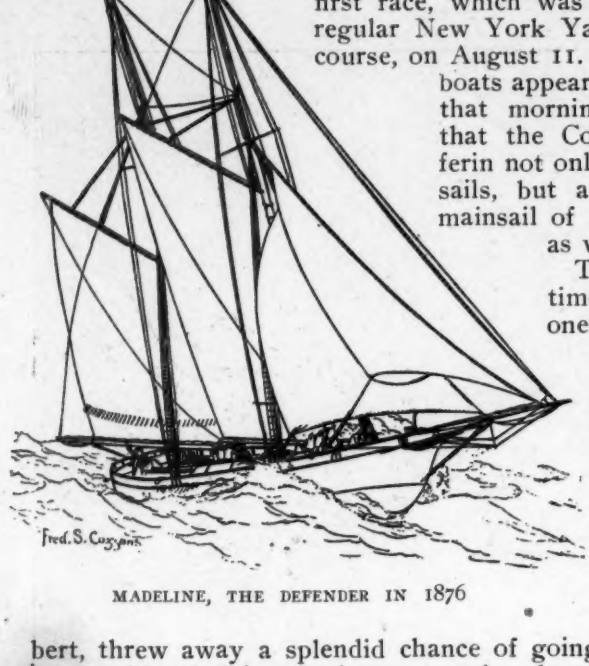
The Countess of Dufferin was designed and built by Alexander Cuthbert, a Canadian builder of some note who had turned out a number of fast yachts. His most notable work was in the sloop Annie Cuthbert, which he built to beat an American designed yacht built by McGiehan, of Pamrapo, N. J., which had "cleaned up" easily on Lake Ontario for several years. The Annie Cuthbert was successful against this boat, and a syndicate was formed to back Cuthbert in an America's Cup challenger.

The Countess of Dufferin, and his later challenger, the Atalanta, were both handicapped by lack of sufficient funds, and thus suffered by being poorly rigged, equipped and finished. It is said that funds ran short at one time during the building of the Countess of Dufferin, and it was proposed to finance the scheme by popular subscription, selling tickets at a low price, each ticket, or share, entitling the holder to a vote in the control of the enterprise. As far as is known, it was not necessary to resort to this expedient.

The Countess of Dufferin was finished in the spring of 1876 and sailed for New York by way of the St. Lawrence River and the Atlantic Ocean early in the season, arriving in New York after an ordinary passage on July 18 and immediately starting to refit. She was a "sizeable" schooner, being 107 feet long over all, 24 feet beam, and drawing 6½ feet (she was a centerboard vessel), while she spread nearly 4,000 yards of canvas. She was very sharp forward, and when she first anchored in New York harbor she attracted a great deal of attention and admiration, many people taking her at first sight for an American boat, so much was she like one. She was rather poorly finished, however, and when she was hauled out to have her bottom painted, it was noticed that it was as rough as a down East lumber schooner. She was extensively refitted here; among other things, her sails, which fitted like a suit of sailor's dungarees, were sent to Wilson, the famous American sailmaker, to be recut and made over.

The boat which the New York Yacht Club picked to meet the Canadian challenger was the schooner Madeline, owned by John S. Dickerson, then commodore of the Brooklyn Yacht Club. There was no question that this boat was entitled to be called the "champion" American schooner, as she had been the most consistent racer in the fleet since 1873, in which year she is said to have won every regatta in which she started. She was built in 1868, as a sloop, by David Kirby, a well-known yacht builder of that day, and after suffering numerous alterations, including change of rig to a schooner, she later became one of the "fliers" of an unusually fine fleet of yachts. She was about the same size as the Countess of Dufferin, having an overall length of 106 feet and 24 feet beam. The two boats were of the same general type, and both were centerboarders.

After a disappointing showing made by his boat in the Brenton Reef race, Major Gifford asked for a postponement to give him



MADELINE, THE DEFENDER IN 1876

time to get some new light sails made, and it was finally arranged to start the first race, which was to be over the regular New York Yacht Club inside course, on August 11. When the two boats appeared at the line on that morning it was seen that the Countess of Dufferin not only had new light sails, but a new fore and mainsail of American make as well.

The start this time was a flying one, the old method of starting from anchor having been abandoned. As the two boats jockeyed for position before the starting gun, the skipper of the Canadian, Captain Cuthbert, threw away a splendid chance of going over first and getting his wind free, as he was coming down with a rap full and under good headway when the gun went at 11.15 A. M. But he bore off, and let Madeline have the windward berth, where she blanketed the Countess, killing her so that she was thirty-five seconds behind as well as down to leeward. The wind was ahead, making it a beat down the ship channel to the Spit. Madeline immediately began walking away from the challenger and at the Hook was nearly ten minutes ahead.

The breeze outside was S. S. E. and the Countess tried to steal off to the southward, looking for a better slant to make up her lost ground; but the skipper of Madeline knew the game too well to let her go off alone and tacked after her. When they finally came about to lay the outer mark the Madeline overstood the lightship and lost some five minutes, the Countess judging the distance better and being only 4 minutes 41 seconds behind at the turn.

Both boats piled on their kites like homeward-bounders running down the trades, and, followed by a large fleet of excursion steamers and yachts, whose passengers were keyed up to see what the Canadian challenger could do in running, they tore along at a good clip. It was seen at the Hook that Madeline was outrunning the other, and she continued to draw ahead, finally crossing the line 9 minutes and 58 seconds ahead, elapsed time. Those who saw the race say that this time did not represent her true lead, as she lost the wind under the Staten Island shore and the boat astern moved up on her considerably.

This first race settled pretty conclusively the merits of the two boats, and the second race, the following day, was chiefly interesting by reason of the presence of a third boat on the course, though, naturally, not in the contest. This was the old America, which, in racing trim and with a full racing crew aboard, went over the line after the last boat had started and sailed over the course with the contestants.

The second race was an outside one of twenty miles to windward and back. This day the Countess of Dufferin was sailed by Captain Joe Ellsworth, a noted New York yacht skipper, though, of course, Cuthbert was on board. The breeze was light, freshening somewhat during the contest, but dying away again toward sunset.

The start was postponed until after noon, and when the signal was finally given the Madeline again outmaneuvered the Countess and slipped over thirty-four seconds ahead of the latter. Right in the Countess's wake came the old America, spick and span, her crew trimming in her sails as if they were after the Cup themselves and had forgotten that she was twenty-five years old, with her racing career behind her.

The course was S. S. E., and the three boats made one long tack to the eastward, holding it for about three hours in the light wind. During this time the Canadian yacht kept sagging off to leeward, though she footed well, and when the three boats finally came about to fetch the mark it was seen by the diminished fleet that followed that she was some three-quarters of a mile astern and that the America had slipped in between her and the Madeline.

The boats did not round the outer mark until after five o'clock in the afternoon, when it was seen that the America was only three minutes behind the Madeline (she had started four and a half minutes behind her) and about nine minutes ahead of the Countess. This was a grand showing for the old boat, when it is remembered that the weather was light and the America was a heavy displacement keel boat, while the others were light draft centerboarders.

The run home in the falling wind and fading light was slow and uninteresting, though picturesque, as the three boats, two of them modern racers and one an old-timer, with every rag hung aloft that would catch the faintest zephyr, stood up darkly against the western sunset and slipped almost noiselessly through the water.

It was dark before the leader, Madeline, finished. Less than twelve minutes behind her came the good old America, and after eight o'clock, with the high hopes of her crew dashed, came the Countess of Dufferin. So the series came to an end, the Cup remaining in the New York Yacht Club locker until someone else had the hardihood to challenge. Madeline beats Countess 27 minutes 14 seconds, and America beats Countess 19 minutes 9 seconds.

After the race the Countess of Dufferin was stripped and laid up at New York, and then the financial troubles that had beset her since she was launched began to come to a head. Captain Cuthbert, who owned the largest share in her, attached her in an effort to force Major Gifford to sell his share. Cuthbert still had faith in her and it was said to be his intention to get control of her, raise enough money to alter her with a view of making her faster, and then to challenge for the Cup again.

These plans fell through, and she was finally sold at a sheriff's sale to satisfy some claims against her, and eventually found her way back to Canada, later being sold to a Chicago yachtsman, who raced her on Lake Michigan.

Five years went by without another challenge from any country, and during these years Cuthbert was busy turning over ways and means to have another "shy" at the famous "mug." In 1881 he had acquired sufficient backing to go ahead with a yacht from his own design, and in the spring of that year started to build a centerboard sloop, following very much the model of his successful sloop Annie Cuthbert, with some refinements that his observations during the years since she was built had dictated.

Cuthbert at this time was a member of a small but progressive yacht club on Lake Ontario, called the Bay of Quinte Yacht Club, and on May 16 the secretary of that club sent a challenge for the Cup to the New York Yacht Club on behalf of Alexander Cuthbert, naming the new sloop, which was then on the stocks and was to be christened Atalanta, as the challenger. As usual, the challenge asked the New York club to waive the required six months' notice so that the race could be sailed that autumn. It seems strange that in three out of the four races for the Cup up to that time the challenge was so late in coming that the six months' clause had to be waived in order to get a race, a thing that might have put the New York Yacht Club at a great disadvantage if it had been necessary to build a boat to defend.

The New York Yacht Club called a meeting on receipt of this challenge and not only agreed to waive the required notice, but to sail a series of three races in September, instead of only one.

Then followed a further request from the Canadian club for

the New York Yacht Club to define its position on sailing one boat against the challenger or claiming the right to name any boat it saw fit for each race.

To this request the officers of the club answered that they would name but one boat to be sailed against the Atalanta in all three races, and said, further, to the Cup Committee: "We sincerely trust that the interpretations of the deed of gift may be so liberal and sportsmanlike as to be beyond cavil." Yet the club and its policy came in for a torrent of abuse, strangely, from both sides. As showing the animus that prevailed in the minds of some Canadian critics, it is interesting to quote the following from the Toronto *Globe*, a few days before the final decision of the New York Yacht Club was announced:

"The New York Yacht Club is to be congratulated upon the accommodating spirit shown in the acceptance of the challenge of the Bay of Quinte Yacht Club, notwithstanding several informalities therein. But the terms of the letter of acceptance leave no doubt that the New York Yacht Club is again about to resort to the discreditable tactics it has formerly adopted in order to avoid all danger of a fair contest.

"The claim is made that there must be a series of three matches. This is nothing but fair, as yachting is essentially a pastime in which accident takes a great share. But the New York Yacht Club's idea of fairness and courtesy toward any foreign vessel that seeks to win the Queen's Cup is this: The challenge is considered as being directed to the club as the owner of a great number of yachts, and in sailing the three races the club reserves till the morning of each day's race the nomination of the vessel which is to represent it. If there is a gale blowing the first day, a vessel of specially seaworthy quality is designated; if there is almost a dead calm the second day, a 'skimming-dish' is set to the work of polishing off the foreigner; and whatever the weather may be on the third day, a vessel exactly suited to such weather will be found on hand at the starting point.

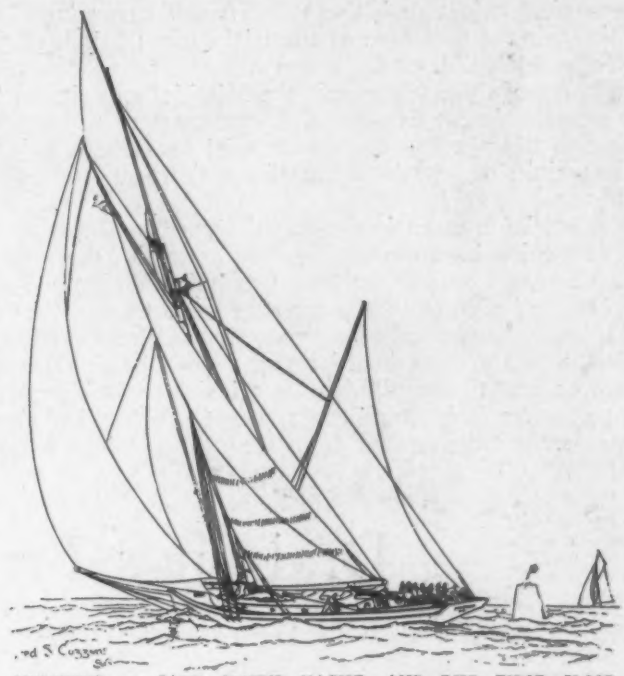
"It has never been open to doubt that the New York Yacht Club has adopted this elaborate system out of a determination to retain the Queen's Cup at all hazards. Nothing short of a whole flotilla of yachts would stand any chance in such a skin game as this competition has made. . . .

"The New York yachtsmen protested, after she had been beaten, that the Countess of Dufferin was of no account whatever against their cracks. Let them now show a practical reliance upon their own opinions and enter upon the new race with another vessel by the same builder under such conditions as the common sense of the world says are fair. The strained interpretations of a police court pettifogger ought not to prevail in a matter connected with such a noble pastime as yachting."

After reading this masterful stricture, it is pleasant to turn to an American newspaper writer's opinion of fair play and of the New York Yacht Club's announced position in this series:

"We view the making of this match to sail a single yacht against the challenger as conceding advantages to which no challenging party is entitled, either by the equities of sporting law or conditions named in the deed of trust. This historic emblem is no prize fighter's belt. It was won by sailing against the fleet *par excellence* of the world, and the present indications are that the Canadians will make the attempt for its possession with a craft equal to any of our own; but should the challenging party to this single-handed match of 'best two in three' trials beat our craft (not a remote probability, at this time, at least), would this yacht show one 'jot' or 'tittle' of that superiority, naval and nautical, of which this trophy is a symbol? Certainly not. . . .

"Not for a moment do we suppose that our yachtsmen wish to 'toss a copper' for the possession of this Cup; but in what else are these single-handed matches culminating? Fancy the plucky Stevens, who would 'flip' a dollar for thousands, after plowing three thousand miles of deep-blue water to wrest the trophy from the Royal Yacht Squadron, challenged to stake it on a single-handed race of 'skimming dishes'! Any craft challenging for this Cup, in our opinion, should sail against all of her class that could



MISCHIEF, A CARY SMITH YACHT, AND THE FIRST SLOOP TO DEFEND THE CUP

be mustered, and therefore these single-handed matches, and also the waiving of any conditions named in the deed of trust, constitute a bad precedent. . . .

"It is an axiom in sport that a 'good match is won when made,' and really our yachting friends, guardians of the America's Cup, do not shine as matchmakers."

Can you beat it? Between two such antipodean viewpoints the poor America's Cup Committee was in a bad way. However, it went on arranging matters according to its lights to bring about a fair race.

The Canadian boat was delayed in building, as yachts usually are, and the summer slipped away before she took the water, making a postponement of the race necessary. She was finally launched on September 17, and after a very brief tryout was made ready for the journey to New York, which was started early in October. Then it became known that the yacht was to come to New York via the Erie Canal, instead of the St. Lawrence and ocean highway.

She was 70 feet long overall, 64 feet on the waterline, 19 feet beam, and drew 5 feet 6 inches without board, and with board down 16 feet 6 inches. She was so wide that to get her through the canal locks it was necessary to list her over on one side by shifting her ballast, and with her spars lashed on deck she was towed through the canal, and did not reach New York until October 30, long after the yachting season had closed.

Meantime, the flag officers and race committee of the New York Yacht Club had not been idle. This was the first yacht of sloop rig to challenge for the Cup, and the fleet of large sloops in this country did not nearly equal the schooner fleet either in size or caliber. The only large sloops in the club were the Mischief, Gracie, Fanny, Vision and Hildegard; and while these might do, it was thought best by the flag officers of the club to be on the safe side with a new boat. So they went to David Kirby, the builder of the last defender, Madeline, and also of the fast sloop Arrow, owned outside the club, and asked him what he could do. He guaranteed to build a sloop that would be faster than the Arrow, and though the time was short, it being then late in the spring, the boat was laid down, and was ready in time for the trial races in October.

This boat was called the Pocahontas, and she was the first boat built especially to defend the Cup. Likewise this was the first year it was thought necessary to hold trial races to pick the defending yacht, and on October 13, the Canadian yacht being still

on the raging Erie Canal, these four crack sloops met in New York Bay for the first race of the trial series: Mischief, Gracie, Pocahontas and Hildegard.

As a result of these three races the Mischief was chosen to represent America in the Cup races. Pocahontas turned out to be a failure, and did not win one of the trial races She was placed out of commission, much to the disappointment of her owners and builder.

The Mischief was an iron sloop designed by A. Cary Smith, who was coming into prominence then as one of the new school of scientific naval architects. She was built in 1879 and showed somewhat the influence of the growing trend toward the English cutter type. She was called a "compromise sloop" at that time, though she was a centerboarder and a wide boat. Her dimensions were: Length overall, 67 feet 5 inches; waterline, 61 feet; beam, 19 feet 10 inches, and draft, 5 feet 4 inches, her rig showing some radical departures from the old American sloop type. She was a fast and an able boat, and the final decision of the Cup Committee was a wise one.

The first race with the Canadian challenger was fixed for November 8, the latest date such an important event has ever been scheduled, over the club's regular inside course. Both boats were ready, but the day was foggy with no wind, and the race was postponed until November 9.

As a contest the races were devoid of interest, the challenger being no match for the "iron pot," as the Mischief was frequently and endearingly called, and need only be described briefly here.

The Atalanta was sailed by her designer and builder, Mr. Cuthbert, and her crew was largely composed of amateur sailors from Lake Ontario, who had volunteered for the race. There were a few paid hands on board, but the amateurs were largely in the majority. The first race was started in a fresh S. W. wind, the Atalanta having a single reef tied down, while neither boat carried

(*Continued on page* 48)

Drainings From the Bilge Pump

Being Odds and Ends Sucked Through the Strainer of that Troublesome but Necessary Part of a Boat's Equipment

A Novel Method of Taking Bearings at Sea

The following letter from a YACHTING reader in the Hawaiian Islands tells of a method of getting position by bearings that may be useful to skippers navigating on inland waters. We do not vouch for the accuracy of the new method, but give it for what it is worth:

MR. EDITOR:

I do not wish to pose as an expert in anything, more especially in matters pertaining to those who go down to the sea in ships, but I believe that I can lend a hand by describing a valuable aid to navigation which I discovered during my first command as master in steam.

It was in December, 1884, that I received my appointment as master of the steamship C. R. Bishop, of the Inter-Island Steam Navigation Company, of Honolulu, Hawaii, and I assure you it was a red letter day for me. No, I did not feel any swelling in my head, or any ways out of the ordinary, only just a natural feeling that I had got a start in life after many hardships.

Our route was from Honolulu to Waianae, Waialua, and all windward ports on the Island of Kauai, and return. All of these ports we made in daylight with the exception of Waialua, on the northwest coast of the Island of Oahu. The land back of Waialua is very high, and a treacherous coral reef extends far out to sea. In boisterous weather the breakers are very heavy, consequently this place must be approached with great caution upon a dark night. At the time of which I write there was only one white resident of Waialua—old Bob Dixon. He was manager of a cattle ranch, and a better, kinder or more generous old gent than Bob never breathed.

Close by Bob's residence was his stable, in which he kept, for breeding purposes, a favorite jackass. Now I noticed that always upon my arrival with the steamer, in blowing the steam whistle to notify the natives of our arrival, Bob's jackass invariably responded. The happy thought struck me that some dark night, when feeling my way in to an anchorage with the lead, I might be aided, *to some extent,* by the braying of Bob Dixon's jackass.

I had not long to wait to test the accuracy of my additional aid to navigation, for shortly afterwards one dark night I was feeling my way in with the lead I asked the second officer to take bearings of the sound of Bob Dixon's jackass while I blew the steam whistle and let me know when the sound bore E. N. E. magnetic. Well, sir, it is the gospel truth, at every blast of the steam whistle the jackass responded until the second officer reported the sound bearing E. N. E. by compass, when I ordered the starboard anchor let go. Upon the approach of daylight we found ourselves in the usual anchorage in Waialua harbor.

It is thirty years ago since I heard the bray of Bob Dixon's jackass, but I can never forget it. Even now, when I think of it, and of that long, lanky Down East second mate taking a bearing by the azimuth compass, with his knees at an angle of 45 degrees from the deck, I laugh until it gives me a pain in my appendix. Many times I have wished that I could have taken his picture. They say attitude is the art of gunnery, and there is money in it for some smart cartoonist to sketch that second mate for the outside cover of a good sea story, for you know first impressions generally stick.

Please don't consign this *true* story to the shakings barrel; it may come in handy for *rope yarns.*

Yours fraternally,
J. R. MACAULAY.

You Can't Beat the Square Head

An amusing incident is attributed to the mate of the Cup defender Defiance after the second race off Sandy Hook, in which that boat did not take part, though she was seen under sail earlier in the morning with her club topsail aloft.

The press boat steamed over to the Horseshoe, and going alongside, hailed Defiance to ask the reason why she had not taken part in the day's race.

The conversation was something like this: "Is Captain Howells aboard?" "No, he ain't." Then from the committee boat, "What was the matter that you weren't at the line to-day?" Answer from the giant Swede mate, "Dere ain't nuthin' de matter. We was just out under sail dis morning trying to find out what was de matter"!

Can you beat it?

Sympathy

Did you ever watch a land lubber broach a coil of new rope, and see him struggle with the kinks afterwards? If you have, did you give him your sympathy? Have you ever seen an amateur yachtsman try to stick an eye splice in a piece of stiff new rope, and watch him draw the strands through? Both of these cases should arouse your sympathy. They certainly deserve it.

Jottings About the Cup Yachts

At this time of an America's Cup season the usual crop of semi-intelligent comments sprout and find their way into print in the various publications. Some of them have the merit of, at least, bringing a laugh, as witness the following:

"Just to illustrate the carefulness with which the possibilities of the new cup defender yachts are being watched in their 'tuning up' processes, which have now begun, one notes that very important memoranda are taken as to how long the yacht will carry way under all the various conditions after being blanketed. This information may enable her skipper to know just what risks to take."

"There is no longer the faintest doubt of the great superiority of Shamrock IV over the other Lipton boat. The question to be answered now is whether Nicholson's racing machine can endure the pounding of Atlantic surges and arrive on this side intact and sound."

We get this every Cup year. The strain of an ocean passage—nursing the boat across under jury rig with a consort standing by ready to tow is nothing to the strenuousness of a hard race and carrying on with racing spars on end.

The following emanates from an English writer regarding a reduction of lead on Shamrock's keel and an increase in sail area:

"This would be a double advantage. An increase of sail would heel the yacht quicker, and the more she heels the longer her sailing length becomes. As the lightening of the keel would reduce two important rating qualifications—the quarter beam length and displacement—I think Nicholson will not miss the opportunity."

Inasmuch as the displacement of a boat is used as the divisor in the rating formula, and hence the larger the displacement the smaller the rating, it is hard to see how reducing the displacement is going to be of any advantage to the new boat.

Elements of Power Boat Handling

By CHARLES H. HALL

[Last month we discussed for the benefit of the inexperienced power boat skipper, or the novice who is handling his first boat, or just beginning to take trips in unfamiliar waters, the rudiments of steering, the Rules of the Road at Sea, and touched upon the use of charts and the buoy system of the United States. In the following article we take up more fully the use of charts, bearings for finding position, and the lead line.]

IF the contour of the bottom or the location and character of the lights and buoys never changed, a chart once made would be good indefinitely. However, not only does the bottom change with the action of storms and currents, but in some places the change is so rapid that the channel buoys are not located upon the charts. In such a case the buoys are constantly reset so as to follow the vagaries of the channel, and a note to that effect is placed upon the chart. Besides this new dangers are sometimes discovered. A pinnacle rock may be found by a coast survey ship equipped with a wire drag, or occasionally by a vessel grounding upon it. Additional buoys are placed, new channels are dredged or old ones widened and deepened, new lighthouses are built and old ones abandoned, or the characteristics of existing lights are changed. Thus a chart that is out of date becomes not a guide, but often a positive danger.

In buying a chart be sure to get one that is of as late an issue as possible, and look for the legend in the margin printed with a rubber stamp, "Aids to Navigation Corrected to such and such a date." As it would be too expensive to make new charts for every new buoy set or rock discovered, these are noted on the charts before issue, and are described in the weekly Notice to Mariners, published by the Coast Survey and the Bureau of Lighthouses. These pamphlets may be obtained free by writing to the Commissioner of Lighthouses, Washington, D. C., and your chart should be kept up to date by entering on it the information contained in these weekly bulletins. Besides this weekly, the Lighthouse Service publishes a Light List giving a complete description of every light, whether ashore or afloat, along the coast, including lightships and gas buoys. The Lighthouse Service also publishes a Buoy List for each lighthouse district, which describes and gives the location of all the buoys in the district, both lighted and unlighted, as well as the beacons and daymarks, and the careful skipper will have both of these books aboard his boat.

It may be mentioned in passing that it is unlawful to make fast your boat to any buoy, or to anchor so as to interfere with any lighthouse or range light, and the fines for violating this law are heavy.

Position by Bearings

Distances on the water are notoriously deceptive, and it is extremely difficult to guess the distance from any point without a great deal of practice. Occasionally position may be fixed by a bearing of some prominent object ashore with the estimated distance from it, the bearing being taken by compass and plotted upon the chart. The handiest device to use for this is known as the Azimuth Instrument, which is placed and centered upon the cover glass of the compass bowl. It has sight vanes on each end, each with a vertical wire, and there is also a horizontal wire close to the bottom. A bearing is taken with it by swinging the instrument so that the two vertical wires are in line with the object whose bearing is sought, and then (without removing your eye) noting what point on the compass is under the horizontal wire. The bearing is then plotted on the chart by using a parallel ruler, one leg of this device being set on the compass rose and the ruler then worked across the chart, picking up the legs alternately, until one edge passes through the distant object.

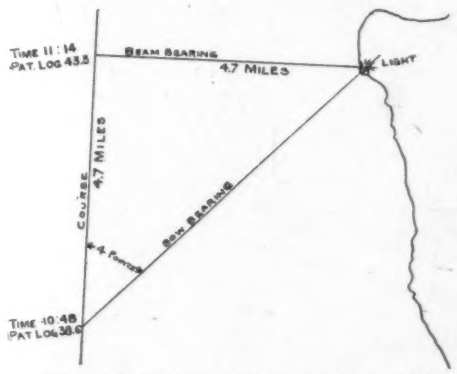


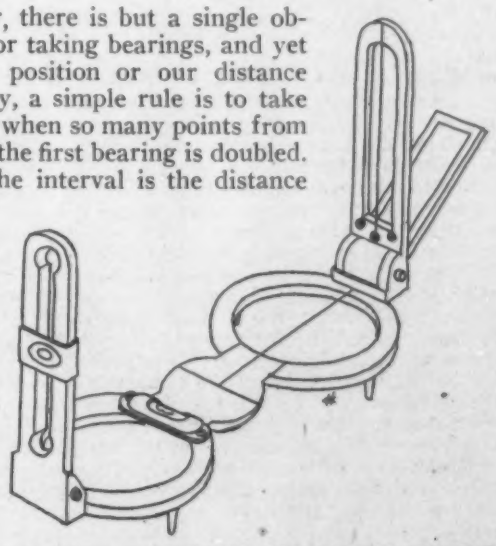
DIAGRAM OF BOW AND BEAM BEARING

For example, suppose Beavertail Lighthouse bears N. ½ W. Place the ruler on the compass rose on the chart so that one edge passes through N. ½ W. and S. ½ E.; then work the ruler across the chart until you get one edge through Beavertail Light, and draw a line southerly from it. The boat's position is somewhere on this line. A little practice with the parallel rulers is necessary before they can be used quickly and accurately. They often seem bound to slip just at the wrong moment, and then one has to start afresh. There are usually several compass roses distributed around the chart, and the nearest one should be used.

Distances are measured by using the dividers. Suppose the distance is required from the boat to a lighthouse; set one point of the dividers on the mark showing the boat's position and open them until the other touches the charted lighthouse. Then, without changing the setting, take them to the scale of miles on the chart, putting one leg on the zero and reading the distance at the other. For long distances, such as measuring the run from port to port, set the dividers by the scale to some fixed distance, such as five or ten miles, and step off with the dividers along the course drawn on the chart. Each step then is five miles, and the last step should be measured as directed above. Do not lose count of the number of steps or you may get five miles too much or too little in your reckoning.

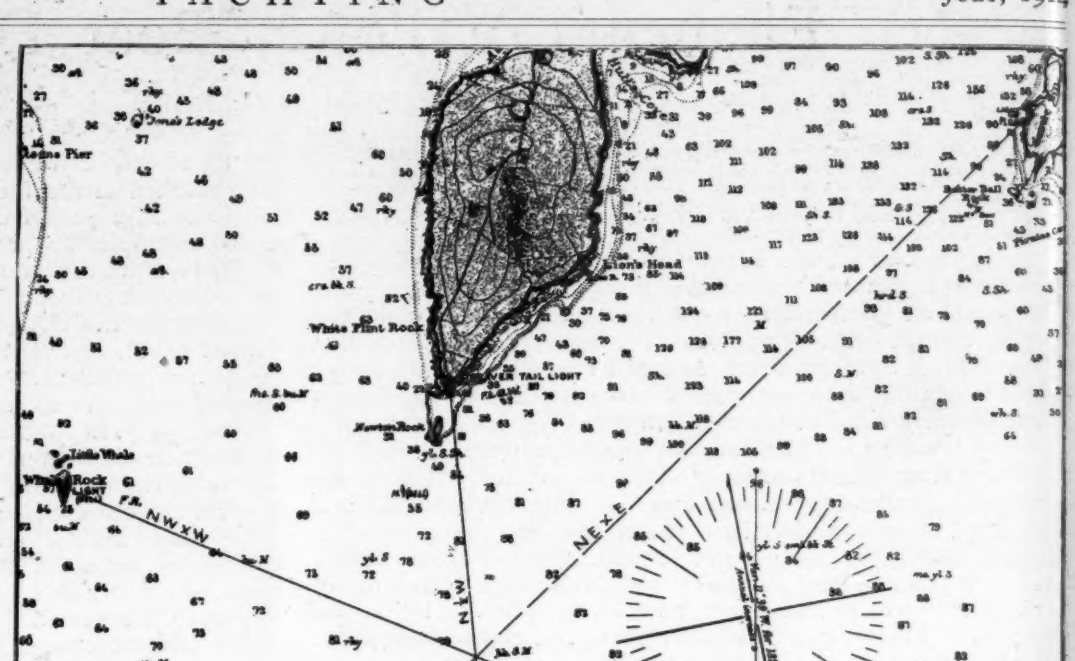
A single bearing gives simply the information that the boat is in a certain direction from the fixed object. In the case previously quoted she is somewhere S. ½ E. from Beavertail Light. If the distance from shore can be closely estimated this may be laid down on the chart to the proper scale; but a much better way is to take a second bearing and plot that also. Whale Rock will serve admirably, and is found to bear N. W. by W. In this case, known as cross bearings, the boat will be at the point where the two lines are drawn intersect. Of course, both bearings must be taken as nearly together as possible. Objects ashore should be chosen, for lightships and buoys may drag their anchors and be out of position. In fixing position by cross bearings where there is a choice of objects, select those that will give you bearings as nearly as possible at right angles, and also choose a near object rather than a very distant one. Of course, you must be sure that they can be identified upon the chart. If a third bearing be taken and plotted it gives a check on the other two. The bearing of Castle Hill Light, N. E. by E., is shown in dotted lines in the illustration.

Sometimes, however, there is but a single object in sight suitable for taking bearings, and yet we wish to find our position or our distance from it. If under way, a simple rule is to take a bearing of the object when so many points from the bow, and run until the first bearing is doubled. The distance run in the interval is the distance from the object. That is, suppose you are heading E. S. E. and a light bears S. E. by S. As it is 3 points from E. S. E. to S. E. by S., this is a "three-point bearing," and we must run until we have made this a "six-point bearing," i. e., until the object bears


AZIMUTH INSTRUMENT FOR TAKING BEARINGS

south. Suppose you have run four miles between the two bearings; then the light will be four miles distant when it bears south. The most common case is known as "the bow and beam bearing," in which the first one is taken four points on the bow, and the second one abeam, the distance run between the bearings being equal to the distance from the object. In running along the land a bow and beam bearing gives the distance from the object at right angles to the course.

The methods described above fix position, but the seaman needs also some means of measuring the depth of water. This may be accomplished by letting down a weight on the end of a cord, and then measuring the length of the cord. A proper sounding lead and line should be part of the equipment of tapering, and with a hole in its upper end for attaching to every boat. The lead is usually hexagonal in section, slightly tapering, and with a hole in its upper end for attaching to the line. It has a cup-shaped depression in the base, of which more later. The line should be wet and well stretched before the marking, and should be marked when wet. The proper weight may be anything up to 14 pounds; 7 pounds is a convenient size.



CROSS BEARING ON BEAVERTAIL AND WHALE ROCK, WITH CHECK ON CASTLE HILL

Sailors are traditionally conservative, and the present conventional "marks and deeps" of the lead line have been handed down for generations. The motor boat sailor may mark his line to suit himself, provided he makes the markings clear so that there is no danger of confusion. One beauty of the traditional marks is that they may be distinguished by color in the daytime and by feeling at night. They are as follows:

At 2 fathoms from the lead, 2 strips of leather.
At 3 fathoms from the lead, 3 strips of leather.
At 5 fathoms from the lead, a white calico rag.
At 7 fathoms from the lead, a red bunting rag.
At 10 fathoms from the lead, leather with a hole in it.

The 10-fathom line will be ample for most uses, but if a 20-fathom one is desired, the marks at 13, 15 and 17 are the same as at 3, 5 and 7. The English practice, however, varies this by using a piece of blue serge at 13 fathoms. Considerable practice is required before skill is gained in the use of the lead. Good leadsmen are scarce. That is, one that can get an accurate sounding on either side of the vessel with the ship going ten knots and water over 10 fathoms deep. For river work and poking around in shallow water with a light draft boat, a sounding pole is handy. It should be marked in feet, with marks carved in so that they may be felt in the dark.

The ordinary use of the lead is to keep the boat in the channel and to give notice when the water shoals. In fog it may be used to help in obtaining one's position. If a series of soundings is plotted with the proper distance between them, the depth obtained may be compared with the depth charted. For this purpose a single sounding is practically useless, although when changing course in a fog (when running by clock and compass) a single sounding will often verify the position, especially if the lead be "armed." This means that the saucer-like depression in the base is filled with tallow or soap to which minute particles of the bottom cling. Thus, if one finds that the lead has brought up fine white sand where the chart called for mud or shells or some other substance, the assumed position is evidently wrong. In sounding for position, or to pick out an anchorage where there is much rise and fall, allowance must be made for the stage of the tide.

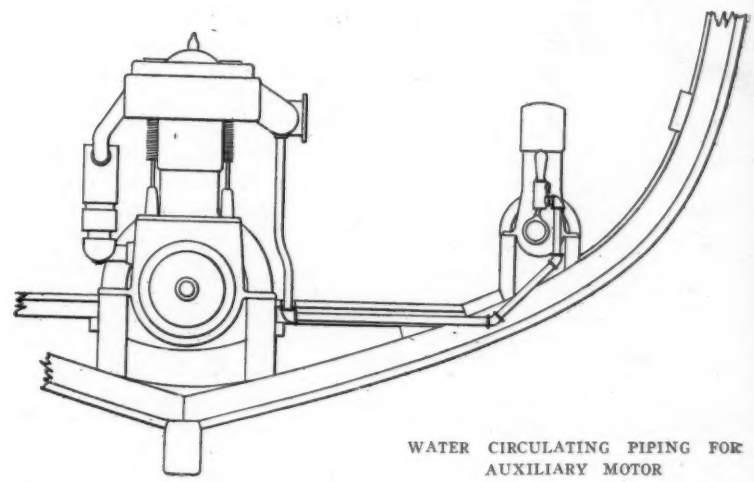
(To be continued.)

Mess Room Talk

For Cooling the Engine After Stopping

Everyone who has operated an internal-combustion engine in a closed boat has been bothered by the heating of the engine room after the engine has stopped. A good marine motor may run all day long perfectly cool and with the temperature of the engine room normal, yet when stopped at night and the water circulation shut off, the engine becomes so hot that the engine compartment frequently becomes unbearable. An ingenious way of obviating this came to our attention recently, and as the idea is applicable to all boats where there is a small auxiliary plant, it is worth explaining.

The system consists of nothing less than connecting the circulating water in-take of the auxiliary engine with the water outlet of the main engine, thus drawing the circulating water for the smaller engine through the larger one. The dynamo or bilge pumps can be run with the smaller engine immediately after stopping, with the result that the large engine will be perfectly cool and the temperature of the engine remain normal. The sketch shows how this may be done, although the piping will have to be fitted to suit the individual needs of the engine and installation, it being merely necessary to tap the water outlet circulating pipe close to the manifold, with, of course, a cross or three-way valve in the pipe line. If it is ever desired to run the two engines at the same time a separate outboard in-take for the small engine will have to be provided. The piping mentioned here is, of course, in addition to the regular outboard water discharge of the main engine.



WATER CIRCULATING PIPING FOR AUXILIARY MOTOR

JOYETTA, A NEW CLASS R BOAT, OWNED BY WILLIAM H. CHILDS. FOUR BOATS HAVE BEEN BUILT TO THE CLASS ON LONG ISLAND SOUND

THE NEW CLASS R TROPHY OF THE CORINTHIAN Y. C., OF MARBLEHEAD, FOR MASSACHUSETTS BAY RACING. OPEN TO ALL RECOGNIZED YACHT CLUBS

Mooring for 32-Footer

BROOKLYN, N. Y.

I have a 32-foot boat which I wish to moor off the Bay Ridge shore, Brooklyn. The mooring anchor which I now have is a bulb-shank mushroom of either 60 or 80 pounds (I cannot make out definitely), to which I have attached 50 feet of 7/16-inch anchor chain and another 50 feet of ⅜-inch chain, the entire 100 feet weighing 350 pounds. Do you think that this anchor, plus the weight of the chain, will be a safe mooring off this coast, or do you think I should double the weight of the anchor?

A. C.

A bulb-shank mooring of 60 or 80 pounds is hardly heavy enough, as the northwest wind will pile up a pretty big sea on that beach. Your chain is plenty heavy. In fact, the chain itself would act as quite a drag, but you must remember that about 50 feet of it would be off the bottom when riding to an anchor in any kind of a breeze. To be on the safe side you ought to have a mushroom of about 150 pounds weight. A mushroom of this weight is not too large for a boat of the size you mention, but, with the chain you speak of, it should be sufficient. One hundred feet of chain for a mooring in the depth of water you are probably anchored in seems a good deal. You must have plenty of room to swing if you have that much scope. Sixty feet should be sufficient in water not over 20 feet deep.

Under-Water Exhaust

BARNEGAT, N. J.

I have a 30-foot open boat with an 18-horsepower, four-cycle engine, the exhaust of which comes out at the stern but above water. I am not only bothered by the noise of the exhaust but by the spray from the steam when the wind is anyway over the quarter. Would an under-water exhaust reduce the efficiency of the engine in any way through back pressure, and would it be possible to run the exhaust direct from the manifold down through the bottom of the boat, without having to pipe it aft one-half of the length of the boat, the engine being installed amidships? What objection is there to having a straight lead of pipe outboard under water from the engine? J. W. F.

There is no reason why you cannot have an efficient under-water exhaust without appreciable loss of power in a boat of the type mentioned. You cannot, however, run the exhaust directly down from the engine through the bottom of the boat. The water level would stand too high in this pipe, and would cause so much back pressure as to impair the efficiency of the engine, and, when the pipes are cooling off, would syphon the water back into the cylinders if there was not a cut-off cock. There are several under-water exhaust outboard devices on the market. To reduce pressure the outlet must be close to the waterline. It is best to carry this to the stern, where the pressure of the water is less, and if this is done there is no reason why material loss of speed should result. If the engine is below the waterline the exhaust pipe line must be carried up well above the waterline before it goes overboard, and in any case should have a pet cock in its lowest part for draining the pipes and muffler.

Rating Formulas for Small Boats

OTTAWA, CAN.

We have a small yacht club here at Britannies, a small village on Lake Deschenes near Ottawa, and as is usually the case in such instances there are no two sailboats, outside of the small dinghies, that are the same size or model. We want to have some races during the summer, so could you please tell me the best manner in which to handicap the boats, giving me the formula for finding the rating of the different boats? D. P. K.

The two most common methods of handicapping sailboats of different types and sizes is by some simple measurement rule, or by the use of the handicap system, whereby a boat's *actual speed* is the basis and her previous performances are for a time allowance basis.

In the former case, the simplest rule, and the one most used, is: waterline length, plus square root sail area, divided by two, equals rating

$$\text{measurement} \frac{L.W.L. + \sqrt{S.A.}}{2} = \text{rating.}$$

With this measurement you would have to use the time allowance tables, as published by any of the racing associations, such as the Great Lakes or the Yacht Racing Association of Long Island Sound, which are practically the same.

The other method, that of handicapping on actual speed, is best explained in the article on the "Handicap Class of Long Island Sound" that appeared in YACHTING last month. By this method a boat's elapsed time is taken in each of her four last races and averaged up; this time being compared with the other boats she is racing against, and the ratio of the two being the percentage which the faster boat allows the slower one.

Flag Pole for Club House

NEW HAVEN, CONN.

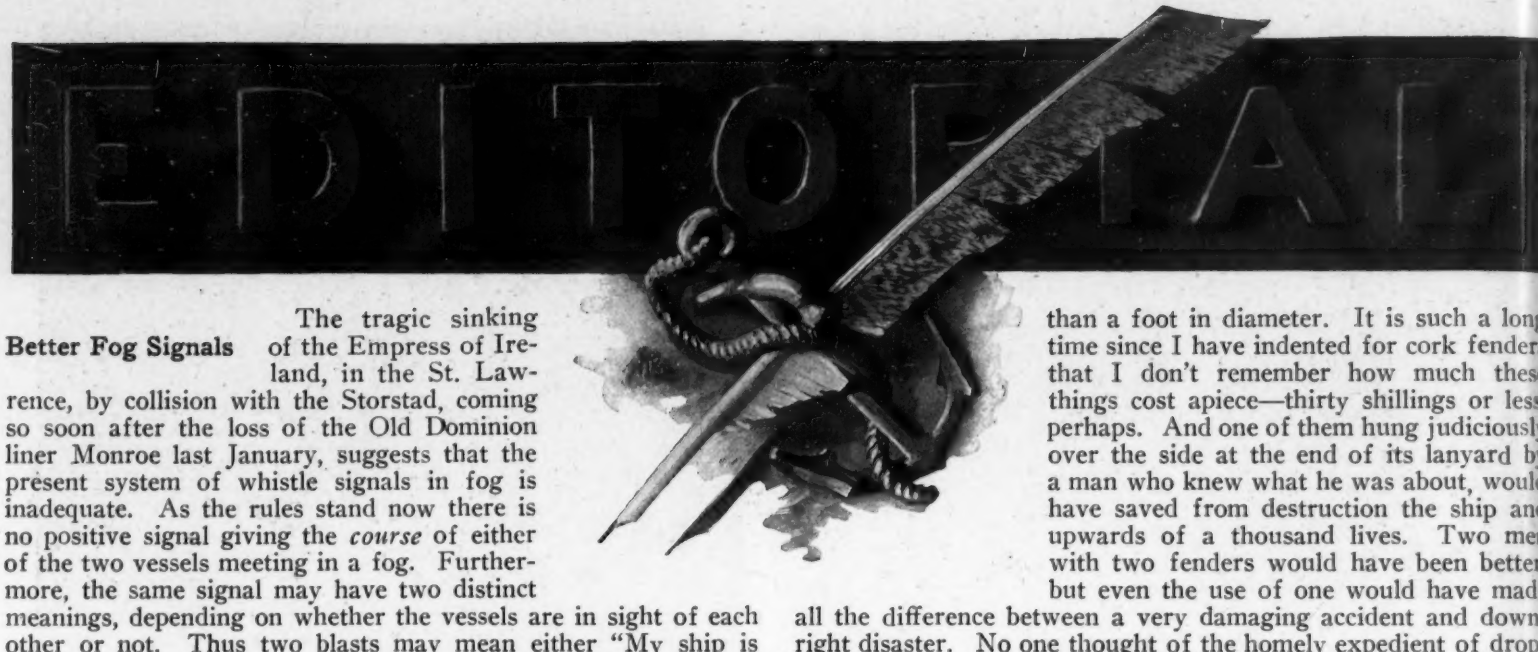
Will you please tell me the proper proportions for a yacht club pole? Say the mainmast was 40 feet, what length should the topmast and yardarm be? How should it be rigged and what are the proper flags to fly?

T. McC.

For the flagpole of a yacht club, of which the length of the mainmast is approximately 40 feet above the ground, a top-mast of from 25 to 30 feet would make a well-proportioned outfit, with the yard anywhere from 24 to 28 feet in length. The club burgee should be flown from the masthead, the American yacht ensign from one yardarm and the Jack from the other.

Corinthian Yacht Club Class "R" Trophy

On this page is a picture of the handsome silver trophy subscribed by the members of the Corinthian Yacht Club, of Marblehead, for Class "R" sloops on Massachusetts Bay. To become the permanent property of any yacht owner it must be won three times by the same owner, each leg to be determined by the highest percentage in the whole season's racing. It is open to all recognized yacht clubs. The cup is 19½ inches high and weighs 226 ounces.



Better Fog Signals

The tragic sinking of the Empress of Ireland, in the St. Lawrence, by collision with the Storstad, coming so soon after the loss of the Old Dominion liner Monroe last January, suggests that the present system of whistle signals in fog is inadequate. As the rules stand now there is no positive signal giving the *course* of either of the two vessels meeting in a fog. Furthermore, the same signal may have two distinct meanings, depending on whether the vessels are in sight of each other or not. Thus two blasts may mean either "My ship is stopped" or "I am directing my course to port." Obviously this may be a source of danger, for though the rules provide that passing signals shall not be blown unless the vessels are in sight of each other, they are occasionally so used, one ship feeling her way past the other without seeing her. This may have caused the accident in the St. Lawrence, as the two ships had been in sight of each other and a low fog shut in a few minutes before the crash came.

Under the present system a single blast gives little information. A whistle is heard, say, off the starboard bow. All that it tells is that there is a steamer there somewhere, and that she is under way. What course she is steering—whether clear or crossing—remains unknown until several signals have been exchanged. At the speed at which modern liners travel, even in fog, there is no time for this. Two vessels, each steaming 15 knots, approach each other at the rate of 30 knots—a mile in two minutes. If they are going 20 knots—a mile in a minute and a half. Under such conditions what time is there to determine the other ship's probable course and to do the right thing with certainty? Even if the engines of both ships are stopped when the first signal is heard, risk of collision may exist.

We believe that the rules governing navigation in fog need amendment. It would certainly look so, for since the disaster just referred to there has been that of the New York and the Pretoria, east of Nantucket, and the Kaiser Wilhelm II and the Incemore in the English Channel, both probably cases in which due diligence was observed by the officers.

Worthless Suggestions

As usual in the case of a disaster at sea of national importance, all sorts of schemes are proposed afterwards for preventing collisions and for increasing safety at sea. Usually these come from those who have no knowledge of the sea and ships, and they are about as impracticable as suggestions coming from such a source usually are.

In the case of the recent loss of the Empress of Ireland with 1,000 souls, the usual crop of suggestions has been offered. Some of them coming from legitimate sources are good, especially those relating to a change in the system of fog signals that will clarify the present code and do away with the liability of confusion of whistle signals.

The following, however, which we can hardly believe was made seriously, comes from Joseph Conrad. He says all that was needed "to save that ship was an able seaman and one cork fender." He goes on:

"Yes; one man, a quartermaster, an able serman that would know how to jump to an order and was not an excitable fool. In my time at sea there was no lack of men in British ships who could jump to an order. As to the so-called cork fender, it is a sort of soft balloon made from a net of thick rope rather more than a foot in diameter. It is such a long time since I have indented for cork fenders that I don't remember how much these things cost apiece—thirty shillings or less, perhaps. And one of them hung judiciously over the side at the end of its lanyard by a man who knew what he was about, would have saved from destruction the ship and upwards of a thousand lives. Two men with two fenders would have been better, but even the use of one would have made all the difference between a very damaging accident and downright disaster. No one thought of the homely expedient of dropping a simple, unpretending cork fender between the destructive stem and the defenseless side."

Joseph Conrad, besides being an author, was formerly, as he says, an officer with, I believe, a British license. It seems incredible that anyone can think that a cork fender one foot in diameter could save the impact of ten thousand tons of coal with a ship of the size of the Empress of Ireland under way.

Changing Horses While Crossing the Stream

It is not often in a Cup defending year that a change is made in the captains of one of the contending boats in the middle of the season. Even in 1901, the Constitution-Columbia year, it was not done, though the choice of professional skippers for the new boat was seen early in the season to have been a poor one. In the present case of Vanitie, however, if the change was to be made it is well to make it thus early in the year.

It is, of course, hard on any captain to resign or be replaced in the face of criticism, and, to do Captain Dennis justice, it is probable that he had not yet learned his boat. He was used to sailing schooners of somewhat more displacement, whose headsails are trimmed differently than on a sloop, and he evidently hadn't got the hang of the new boat. However that may be, he was not making her win, and, if there was more in the boat than he was getting out, it was only just to the owner and designer that she should be given into other hands.

It would be a good thing if she were to be handled by an amateur. Not only is the English boat to be sailed by the leading British amateur yachtsman, but both the other American yachts are handled by Corinthians and it will conserve to the best interests of the sport to have a Corinthian likewise at the helm of Vanitie.

All this talk about Corinthians not being as good as professionals at yacht racing is poppycock. Why shouldn't they be? Most of them have had much greater opportunities for racing than the average professional, and certainly they cannot be said to be below the professional class in intelligence or skill.

Merely because a man has gone to sea and served on vessels for pay does not mean that he can learn more about yacht handling than an amateur. His off-shore experience counts for very little in yacht racing, and a man who has sailed yachts for pleasure all his life has much greater opportunity to become proficient than a man who must follow the sea for a livelihood. And yet you can't get it into the average person's head that an Adams, or a Hanan, or an Emmons, or a Charley Davis are as good as a man that sails because it is his business—in spite of what we have recently seen off Sandy Hook.

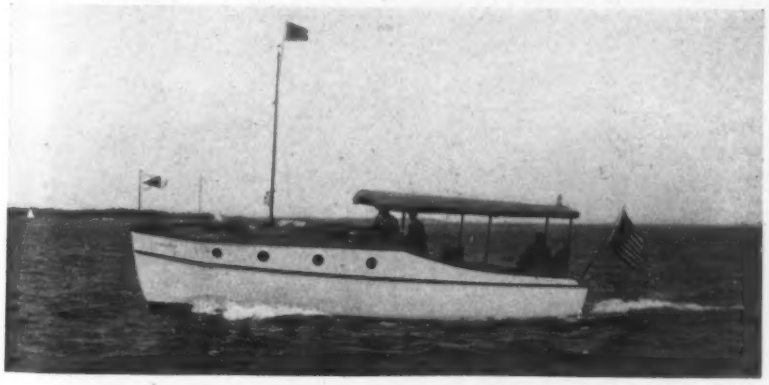
Of course there are some amateurs that never learn to sail, because it is not in them, but we are not talking of this kind. There are, however, plenty who have made good in the racing game, and we will warrant that we can name more first class amateur racing skippers to-day than professional.

The Club House

With the formal opening of the New Rochelle Yacht Club on May 23 with a shore dinner, the improvements to the club house made during the year were seen for the first time by many of the club members. The club house on Harrison Island has always been a most attractive one, though recently it has proved rather inadequate for the needs of the growing membership.

During the winter the piazzas along the front of the house, on both the ground floor and the first story, have been extended several feet towards the water front, making them much more spacious. The dining room and the dancing room were thrown together, with a new floor; the dining room being raised a step, so that while the dancing is going on those dining may sit at the tables and look out over the dancing floor. The floor is also greatly enlarged. A frieze of photographs of yachts and marine views runs around three sides of the room, and adds much to the furnishings. Both the architect and the house committee are to be congratulated on the excellent changes they have made.

The new plan of running the restaurant for the benefit of the club and under the direct management of the house committee is giving great satisfaction. There is good service combined with moderate restaurant prices and good food. About fifty diners avail themcelves of the club privileges Sunday evenings, which is fully double the usual number in times past. The new superintendent is Mr. Pace.



H. M. BETTS' VIRGINIA, WINNER OF FIRST PRIZE

There was a large attendance at the chowder party May 29. In the race that ensued, which started at midnight from Echo Bay and finished at Lloyds Harbor, the yachts had calms and light winds, which made a long trip of it. The first boat to arrive at Lloyds was Commodore Mahlstedt's Okee, which finished at 8:30 on Saturday morning, beating the large schooner Zuhrah handsomely, boat for boat. After the Zuhrah, M. S. Kattenhorn's Surprise II arrived about 9:30 A. M., thus winning the race on corrected time. Guardia and Mahdeena used their power and thus disqualified themselves from racing rather than endure the long trip which would have resulted if sail power only had been used.

The pool and billiard committee now have many entries for the pool tournament, which has just been started.

There was an attendance of about seventy at the stag dinner on June 12, many of the newer members coming out and enjoying the occasion tremendously.

Saturday evening table d'hote dinners at the yacht club are proving very popular. Extra music will be furnished hereafter for the Saturday evening dances. Meanwhile music and the Tango Trio will be in evidence every Wednesday evening for dancing.

New Rochelle Yacht Club boats were very successful at the Larchmont regatta on June 13, Grace and Loewy's Red Wing winning in the second division, and B. R. Stoddard's Amada, sailed by H. D. Cox, winning in the first division. Mr. Stoddard sailed Mr. C. K. G. Billing's Stamford schooner Whileaway, and also succeeded in winning with her by 7 minutes over her nearest competitor.

A New Flagship

Commodore J. A. Mahlstedt, of the New Rochelle Yacht Club, has a new Okee for a flagship this year. This boat is the New York 30-footer, formerly called Rowdy, purchased by the commodore this year. The name of the old boat was retained. The former Okee has been sold to Mr. W. C. Brown, who has also joined the club. A new yawl called the Solita, built by Nevins this spring, is also one of the new additions to the fleet. She is owned by Daniel Bacon. Other new boats in the New Rochelle Yacht Club this season are the Thyra and Sea Urchin, power yachts; the Wanderer, auxiliary yawl; a new auxiliary yawl owned by Mr. DeCamp, and the sloops Clare, formerly the Soya, and Ogeemah, belonging to Mr. P. C. Pfeiffer and D. Ed. Dealy, respectively.

J. L. Mitchell has altered the "Q" boat Essex into a knockabout yawl, and with her new rig and slightly decreased sail area (by removing the bowsprit, etc.), she rates 21 this year as against 25 last year. She is, however, just too large for the "R" Class, and has applied for admission to the Handicap Class. A. P. Bennett has a new 100-horsepower Sterling engine in the Friendship, which makes her go faster than ever. He claims 14 knots, and if you call him up he will probably tell you all about it.

A Power Squadron Talk

The members of the New Rochelle Yacht Club who are interested in power boating were addressed on the evening of June 2 by N. L. Stebbins, of Boston, flag lieutenant United States Power Squadron, and Commodore C. F. Chapman, of the New York Motor Boat Club. The subject of the talk was the United States Power Squadron movement, which was started at Boston a few years ago, taken up by Portland yachtsmen and is this year gaining great headway on the Hudson River and Long Island Sound.

The object of the Power Boat Squadron is to educate yachtsmen in the necessary rudiments of navigation for the better handling of their boats. In order to join the squadron an owner has to pass an examination covering the Rules of the Road, the laying out of courses, the compass, and other elementary principles. Such knowledge has, unfortunately, not been the portion of every yachtsman previously handling power boats, and with the knowledge necessary to pass the examination the owner or master of a yacht is thoroughly competent to navigate his boat where traffic is thickest, as in places like the Hudson River and East River. Members of the Power Boat Squadron are authorized to fly a special squadron flag, by which owners of tugboats and other craft may know the yachtsman is a

H. S. BULLOCK'S ALURA, WHICH TOOK SECOND PLACE

capable navigator and pilot. The formation of a squadron in the New Rochelle Yacht Club is under discussion, and the members of the club have become very enthusiastic on this subject, many of them studying to pass the necessary examination.

The Women's Auxiliary have been granted the privileges of the club house for a card party to be given during July for the benefit of the Colburn Home.

The Power Boat Race

Eleven power boats started in the first power boat race of the season on June 20. An innovation in connection with this race was the method of handicapping the boats. While the race was in progress the regatta committee chose a definitely measured portion of the course over which each of the yachts was to be accurately timed, and the speeds so ascertained were to determine the handicap of each boat. None of the skippers knew on which part of the course they were to be timed, hence showed their best speed throughout, and thus theoretically all of the contestants should have finished practically the same time. The method of handicapping worked out extremely well.

The winner turned up in H. M. Betts' Virginia, with H. S. Bullock's Alura second. Other starters were the Live Wire, Kilkare, Canadice, Takiteasy, Patricia, Marie B., Cito and Ripple. Other power boat races will be held July 25 and August 29.

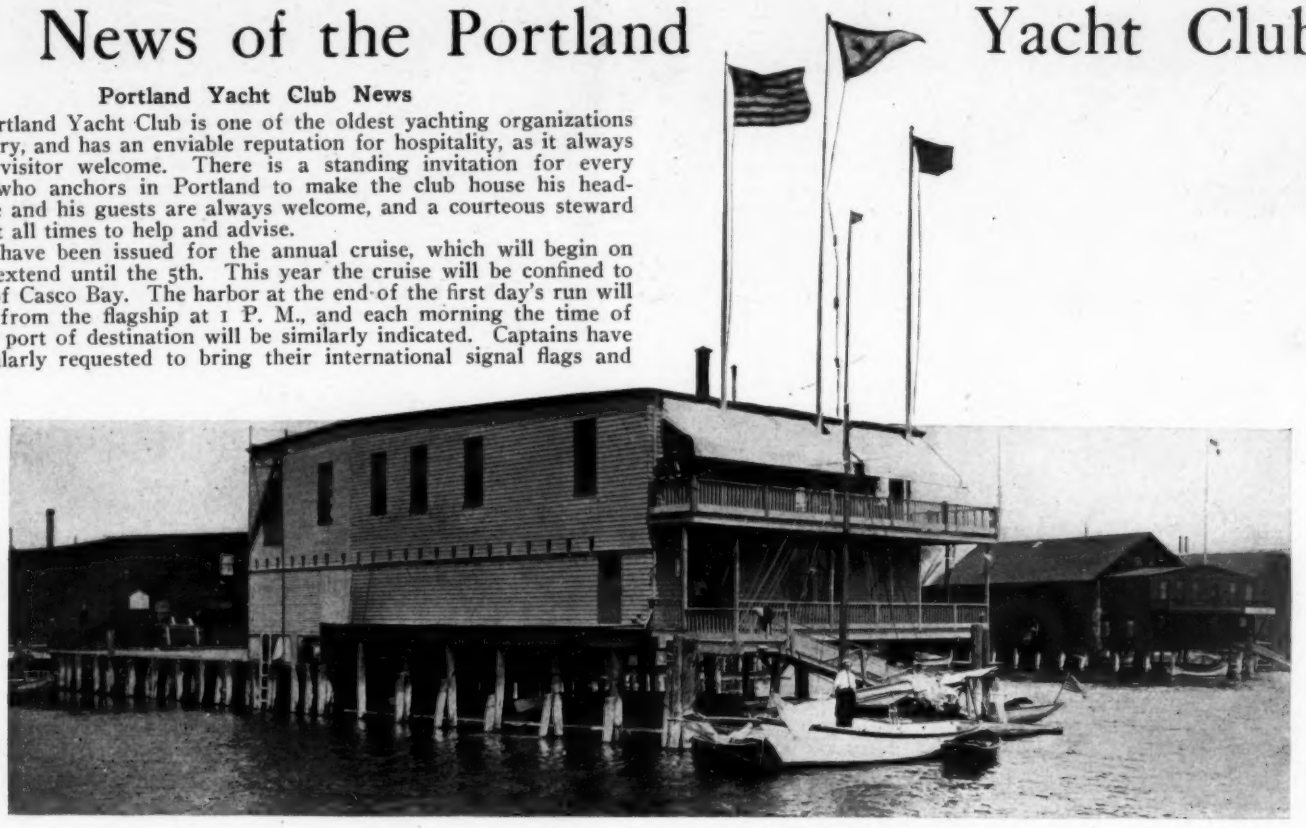
"There is nothing like life afloat," quoth the wife of one New Rochelle yacht owner, as she sat at dinner in the harbor the other night and had the entire contents of the table spilled into her lap as the boat rocked on one bilge and then jerked back to the other side like a bucking broncho, as she took the wave from the Sea Cliff ferryboat. What the owner said from the galley would not pass the Board of Censorship of the Postoffice Department. Steps are being taken to see if the ferry cannot be made to come into the harbor on half speed hereafter. Possibly a civil suit for broken crockery and ruined cabin furnishings may bring the company to reason quicker than anything else.

News of the Portland Yacht Club

Portland Yacht Club News

The Portland Yacht Club is one of the oldest yachting organizations in the country, and has an enviable reputation for hospitality, as it always makes the visitor welcome. There is a standing invitation for every yachtsman who anchors in Portland to make the club house his headquarters; he and his guests are always welcome, and a courteous steward is at hand at all times to help and advise.

Orders have been issued for the annual cruise, which will begin on July 2 and extend until the 5th. This year the cruise will be confined to the waters of Casco Bay. The harbor at the end of the first day's run will be signaled from the flagship at 1 P. M., and each morning the time of starting and port of destination will be similarly indicated. Captains have been particularly requested to bring their international signal flags and code books, as the movements of the squadron will be directed entirely by flag signals. On Saturday evening, July 4, the club will anchor off the New Meadows River Yacht Club, where they will be joined by members from the Bath, Boothbay Harbor and other yachting and power boat organizations. A big night is looked forward to.



THE PORTLAND YACHT CLUB ON MERCHANTS' WHARF

Several new motor vessels have been added to the register of the club recently, and the membership keeps steadily increasing towards the 500 mark. When this is reached a waiting list will be inaugurated.

Vice-Commodore V. F. West's Class P sloop Sayonara is in Massachusetts waters. She won second place in her first race.

The fortnightly dinners held during the past winter have been so successful that the entertainment committee has decided to hold a smoker on the first Wednesday night of each month during the warm weather. A buffet lunch will be served at 6:30, which, the committee says, will be substantial enough for the hearty fellow, so that the members need not visit the lunch counter on their way, but may come direct to the club house from their labors. At 8 o'clock the regular monthly meeting will be held, followed by the meeting of the Power Squadron, and the assembly will then adjourn to the usual good time enjoyed by yachtsmen and their friends. Music will be furnished by a good orchestra, and there will also be vaudeville. All visiting yachtsmen are cordially invited, and this invitation is extended particularly to the captains and their guests who may make Portland harbor on their way either eastward or westward.

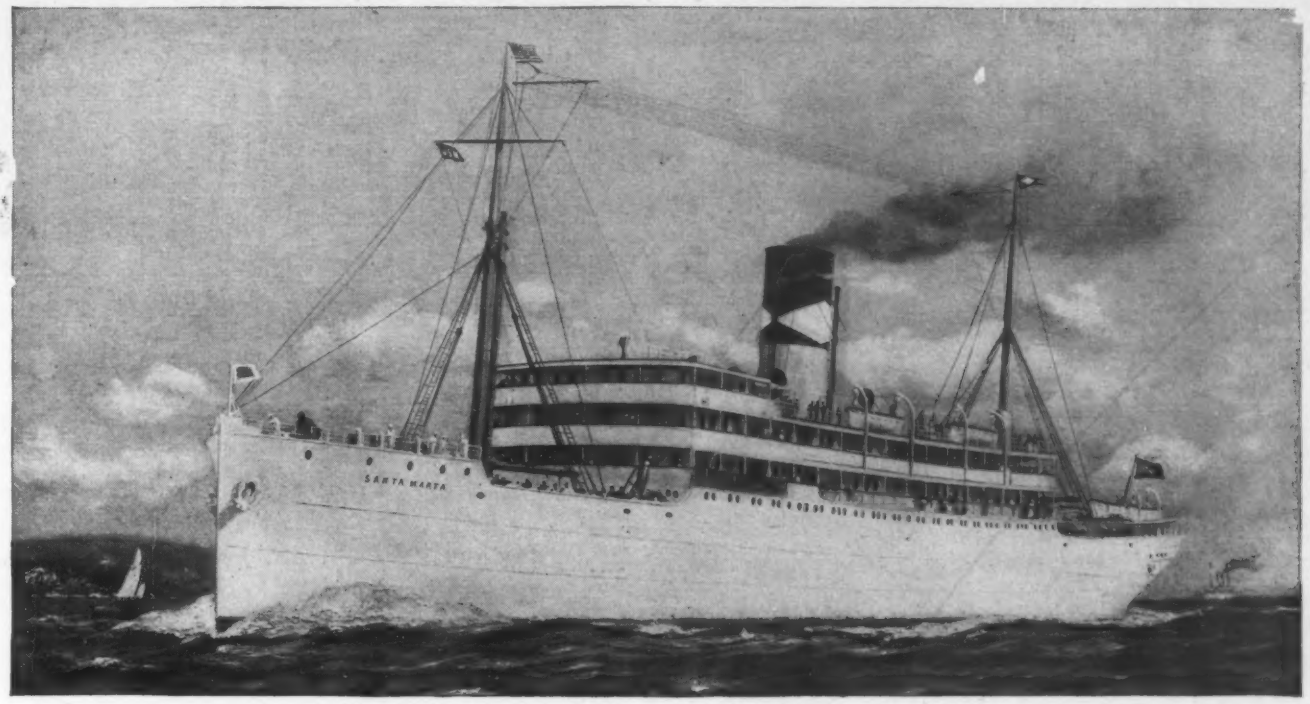
The first of these smokers, held on June 3, was a rousing success, and the regular meeting that night broke all records for attendance. A most cordial letter was received by the club from Sir Thomas Lipton, who extended his thanks to the club for a toast to his health proposed by Mr. William H. Gulliver at the last annual dinner. Sir Thomas spoke of the Shamrock IV, saying that she was not a copy of anything afloat, but was built along entirely new lines. Also that the Cup having been in America for sixty years needed a change of air. He hoped also to be present at some of the festivities at Portland during the summer. The club will arrange a date and will make the occasion one worth remembering.

The members of the Portland Yacht Club are particularly interested in the Bath-built boat Defiance, as Mr. Owen, the designer, is a member of the club, and it would naturally be pleasing to his fellow-members to have her selected to defend the Cup.

The Power Squadron of the Portland Yacht Club held their second annual cruise June 18, 19 and 20. It will accompany the club on their cruise beginning July 2, and those who are unable to leave the club on Thursday, but can start on Saturday, are requested to rendezvous in Harpswell Sound on that day. The flagship of the squadron will be at the rendezvous and act as pilot through Will's Strait. The owners of boats, large and small, are urged to make an especial effort to join on Saturday if prevented from doing so earlier. The Power Squadron when under way will be in command of Rear Commodore Holman F. Day.

Mr. W. A. T. Hunt, lieutenant commander of the Power Squadron, has tendered his resignation. Much regret was expressed by the members, and an effort will be made to have him reconsider his decision.

Several members are trying to charter a small schooner for use during the International Yacht Races. If successful a jolly party will sail for New York in time to witness the races.



The "Great White Fleet"

The 32 steamers of the United Fruit Co. (the "Great White Fleet") meet almost unparalleled extremes of temperature. In winter each trip subjects the varnish first to the icy winds of the North Atlantic, then to the warm sun of the tropics and back again to the freezing north.

Ordinary varnish under such a terrific test would soon turn white, become dingy and spotted. But the steamers of the Great White Fleet are Valsparred. They are spotlessly clean and have a well-kept appearance. They sparkle and gleam throughout the season. They are varnished with Valspar, wherever varnish is used—on the woodwork of decks—on cabins—even on the furniture and pianos.

Constant exposure to salt air does not harm Valspar. Flying spray cannot hurt it. Repeated washings, even with hot water and soap, do not injure it. The rich gloss of Valspar stands the most severe test.

It is not a mere accident that the Great White Fleet is Valsparred; nor is it by chance that the biggest and speediest yachts are varnished with Valspar. It is because owners everywhere have learned that *Valspar is the only varnish in the world that won't turn white in water* and does not scratch white underfoot. Valspar is an extra durable, quick-drying varnish.

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START OF THE BLOCK ISLAND RACE. ALFRED S., THE WINNER, IN THE FOREGROUND, THISTLE, WINNER OF THE LIPTON TROPHY, IN THE LEAD

The Block Island Power Boat Race

Seven boats started in the annual New York Athletic Club race from Huckleberry Island to Block Island at 5 o'clock on the afternoon of June 20 for the Day Cup and the Lipton Viking Trophy. The wind was light, westerly, and fair weather was encountered by the boats throughout the hundred-mile run. The winner of the Day Cup, under the A. P. B. A. rating rule, was the Alfred S., with Oriana in second place. In the Viking Class, under a special Viking rating rule, the race again went to the Thistle, owned by J. H. Wallace—the boat around which the rule seems to be built, judging from the consistency she has shown in racing under this rule. The second prize went to Francis H. and the third to Fabius. The winner's time in the Lipton race was 10:10:00.

For the Day Cup the Alfred S., the winner, owned by H. Soeldner, was 13:51:30 elapsed time and 7:51:40 corrected, Oriana's time was 11:28:00 elapsed and 8:45:02 corrected, and Thistle's, winner of third prize, was 10:10:00 elapsed and 9:36:15 corrected. Thistle's elapsed time was the best of any of the fleet. This is the second time Thistle has won the Lipton Cup, and if she wins it once more it becomes the personal property of her owner, J. H. Wallace.

Camden to Baltimore Power Boat Race

The longest motor boat race on the Atlantic coast this year is that of the Delaware River Yacht Racing Association Cruiser Championship from Camden to Baltimore. The course is from the Camden Motor Boat Club, opposite Philadelphia, down the Delaware River to Overfalls light-vessel, thence to the Virginia Capes, passing outside of Fenwick Island Shoal, Winter Quarter and Cape Charles light-vessels, thence up Chesapeake Bay to the Maryland Motor Boat Club at Baltimore—a total distance of 368½ nautical miles.

The boats are divided into two classes—one from 30 to 43 feet over-all length and the other over 43 feet over-all length; time allowance to be figured under the A. P. B. A. rule, and the boats must be steered by an amateur. This is one of the most sensible ocean races that has ever been planned—the course being sufficiently long, and enough of it being outside to test the real merits of the boats, while it can be finished within a reasonable time and leaves the boats within easy distance of their home ports on the Delaware or New York waters by using the Delaware & Chesapeake Canal on the run home.

Entries must be made on or before July 20 to the regatta committee, of which E. C. Hadley, of 137 East Fifth Street, Philadelphia, is chairman.

Columbia Yacht Club Stratford Shoal Race

The Columbia Yacht Club of New York City will run a long-distance power boat race to Stratford Shoals Light and return, starting Saturday, July 11, at 4:30 P. M. The start and finish will be off the club dock at the foot of Eighty-sixth Street and Hudson River. Skippers may take a choice of either the Battery route or going through Spuyten Duyvil Creek, the distance either way being 112 nautical miles. The boats will be run in two classes—one for cruisers rating 32 to 48 feet and the other for cruisers from 48 to 65 feet. Entry blanks will be furnished by the committee up to July 8, and may be had from Henry C. Pearson, chairman, Columbia Yacht Club, New York City.

In the race of the Columbia Yacht Club, June 6, the new Reliance Peter Pan broke the record for the club course to Ardsley and return, about 30 nautical miles, making the distance in 1:05:30.

Of Interest to the Skipper

Mullins Standardized Wooden Launches

The Mullins Standardized Wooden Boats, designed by Whittelsey and exhibited by The W. H. Mullins Company at the Motor Boat Shows early this season, brought to the attention of boat buyers that this company were now making standardized models in wood as they do with their steel boats. They are now producing five stock models, comprising a 16-foot tunnel stern launch that can be operated in 5 inches of water; two 17-foot stock models of V-bottom type; a beautiful runabout 21 feet in length, the latter boat having a guaranteed speed of 20 miles per hour with a 25-horsepower motor; also a graceful and speedy 25-foot runabout, powered with either a 15-horsepower or with Sterling B-2 35-horsepower motor, complete with magneto and reverse gear.

The accompanying photograph will give an idea of the grace and beauty of these models, which were designed specially for The W. H. Mullins Company by the designers.

The construction of these boats has been given careful consideration, with the result that the Mullins Standardized Wooden Boats possess many exclusive features and advantages that are not to be had in the ordinary wooden boat.

By standardizing on these five models, manufacturing them in quantities by special machinery, The W. H. Mullins Company are enabled to produce boats of a very high order and sell them at a much lower price than ordinarily charged for boats of similar quality.

The Mullins Company contracts for hundreds of marine motors, electrical equipment, propellers and motor equipment of all kinds, and is thus enabled to secure the lowest possible prices. In the Mullins factory each department has its special work, and the workmen become expert in particular branches of boat building.

The Mullins catalogue of Standardized Wooden Boats, in four colors, beautifully illustrated and fully descriptive of their construction, is ready for distribution, and will be mailed promptly upon request.

NEW MULLINS 25-FOOT WOODEN RUNABOUT ARROW, WITH 35-H. P. MOTOR

Durkee's Factory

When so many people are crying out about hard times and poor business we are glad to be able to note that C. D. Durkee & Co. have just made the third addition to their factory in three years. On June 15 the new building, 125 feet by 40 feet and two stories high, was finished and put into use.

Durkee & Co. report that business for the year has been particularly good, and that there has been a big demand for the marine hardware and the many articles of motor and sailboat equipment that they supply. Some of the Durkee specialties are: Reliable fire extinguishers, Crescent yacht ranges, galvanized iron fog horns, Durkee's Taffrail Log, steering gears, yacht ensigns, etc.

Welin Davits on the Vaterland

In these days of much-needed agitation regarding safety appliances at sea, it may be interesting to note that when the new Hamburg-American steamer Vaterland arrived in this port on her maiden voyage in May it was seen that she was equipped throughout with Welin Quadrant Davits, of the Welin Marine Equipment Company, Long Island City, the American standard lifeboat davit. The entire outfit of between fifty and sixty lifeboats is thus launched with Welin davits, said to be the simplest, most efficient and dependable lifeboat launching apparatus in use.

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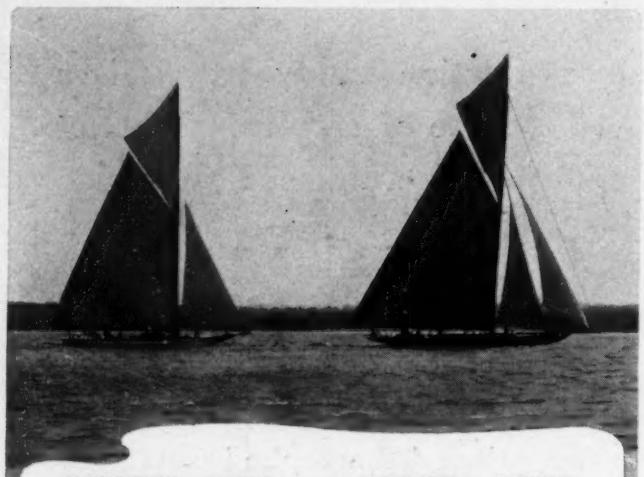

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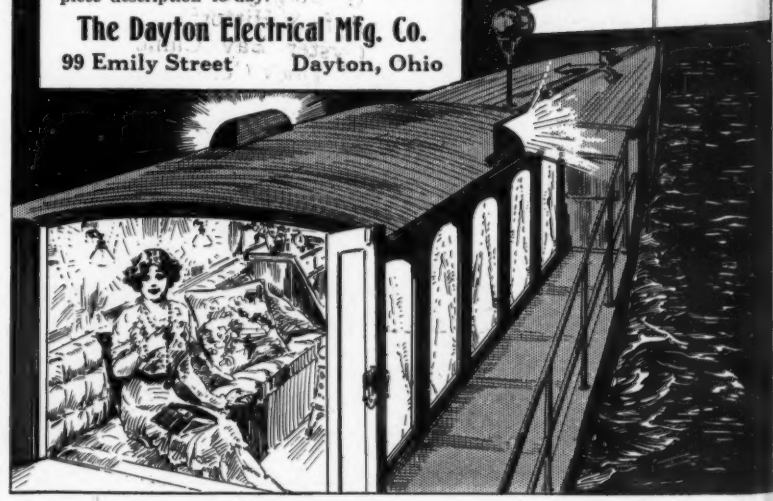

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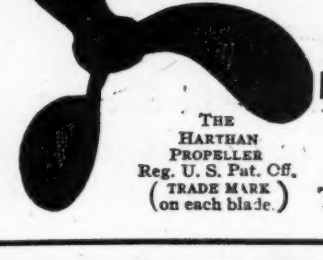

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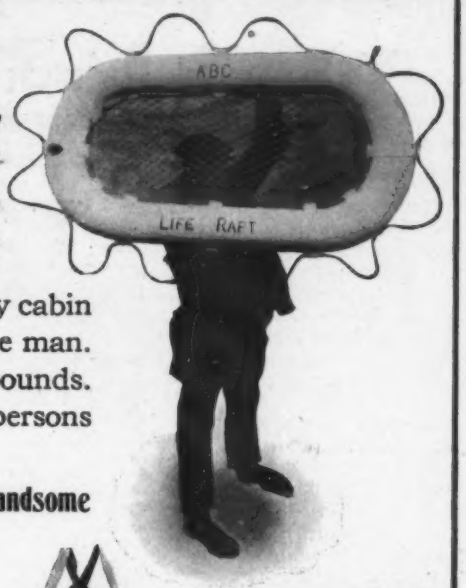

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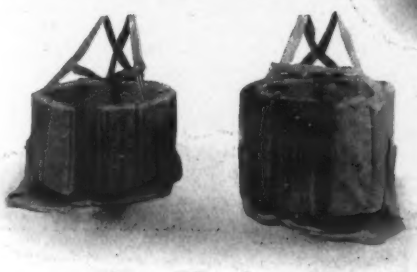

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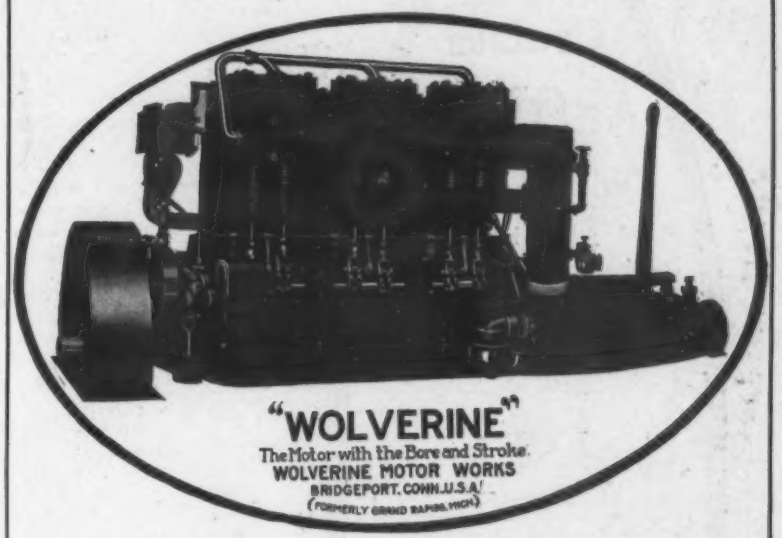

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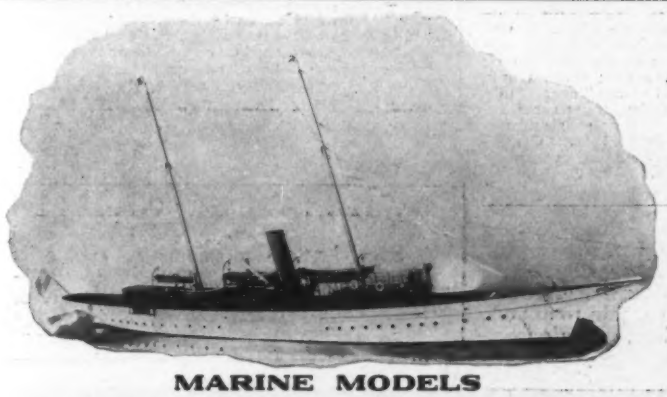

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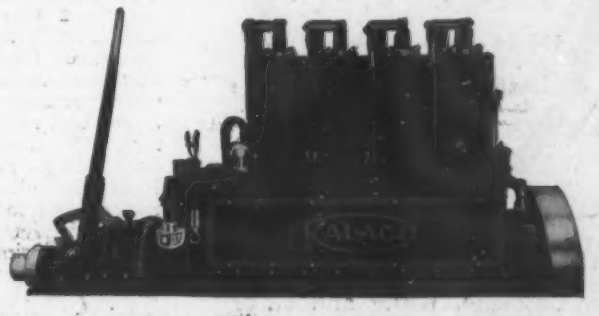

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